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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 22 2015

OFFICE OF CONGRESSIONAL
AND INTERGOVERNMENTAL RELATIONS

The Honorable James M. Inhofe
Chairman
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Thank you for your letter of February 26, 2015, to Acting Assistant Administrator Janet McCabe requesting responses to Questions for the Record following the February 11, 2015, hearing before the Committee on Environment and Public Works titled, "Oversight Hearing: EPA's Proposed Carbon Dioxide Emissions Rule for New, Modified, and Existing Power Plants."

The responses to the questions are provided as an enclosure to this letter. If you have any further questions please contact me, or your staff may contact Kevin Bailey at bailey.kevinj@epa.gov or (202) 564 2998.

Sincerely,

Laura Vaught

Laura Vaught
Associate Administrator

Questions for the Record
Senate Environment and Public Works Committee
Oversight Hearing Titled: Examining EPA's Proposed Carbon Dioxide Emissions Rule for New, Modified, and Existing Power Plants

Janet McCabe, Acting Assistant Administrator

Chairman Inhofe:

1. In 2013, four nuclear reactors prematurely closed. One of those reactors was the Kewaunee plant in Wisconsin. When EPA set the reduction target for Wisconsin, it did so based on electricity production in 2012, a year in which Kewaunee was still operating.

    a. This means Wisconsin will be forced to meet a more stringent target, correct?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. Nuclear energy can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including comments about specific nuclear units and specific Electric Generating Units (EGUs), and will continue to consider this and other comments raised as we develop the requirements for the final Clean Power Plan.

2. There are currently five nuclear reactors under construction, in Georgia, South Carolina and Tennessee. Since they are under construction, they clearly did NOT produce electricity in 2012. However, the Congressional Research Service found that EPA's plan "substantially lowers" the targets in those states to account for their investments in nuclear power, making their targets more stringent and harder to achieve.

    a. Did EPA similarly penalize states with wind projects under construction, assuming *their* existence in setting targets for those states, making those states' targets harder to achieve?

    b. Why does nuclear energy receive such arbitrary treatment?

    c. Shouldn't EPA treat hydropower, nuclear power, and other sources of zero-emission electricity the same?

    d. If states rely upon new reactors in their State Implementation Plans under the proposed rule, will EPA penalize the states if the NRC refuses to allow those reactors to begin operating?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. Nuclear energy can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. In the proposal, we requested comment on approaches to nuclear power, including considering five

under-construction nuclear units at three plants and providing an incentive to preserve nuclear power generation at existing plants across the country. Many commenters have provided information, including that they would like equitable treatment of the Best System of Emission Reduction (BSER) requirements across states and in particular would like similar treatment among the low- and zero-emitting sources of power. We have engaged in outreach to numerous stakeholders about nuclear power, renewable energy, and other low- and zero-emitting sources of power to better understand issues raised in their comments and we are giving careful consideration to all comments received as we develop the requirements for the final Clean Power Plan.

3. Economic modeling of climate legislation by EPA, EIA, and others has consistently shown that dramatic growth in nuclear energy is necessary to reduce carbon emissions and that constrained development of nuclear energy dramatically increases the costs of compliance. If fact, in 2008, EPA determined that 44 new reactors would be needed by 2025 to satisfy the requirements of S. 2191, known as the Lieberman-Warner bill. In 2009, EIA determined that 96 gigawatts of new nuclear capacity would be needed by 2030 under HR 2454, the Waxman-Markey bill.

    a. How many new reactor licenses are actively being reviewed by the NRC?

    b. How many <u>new</u> reactors, in addition to those currently under construction, are necessary to enable compliance under EPA's base case for the proposed rule?

    c. How does EPA plan to meet its carbon emission reductions *without* increasing the use of nuclear energy or even replacing the units that currently provide the bulk of our carbon-free electricity?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. The requirements of the proposed Clean Power Plan differ to a great extent from the elements that constituted both the Lieberman-Warner bill and the Waxman-Markey bill. In the Clean Power Plan proposal, we considered the impact of nuclear power as part of the energy mix for consideration of the proposed elements of the rule and requested public comment. The five nuclear units that commenced construction prior to issuance of the proposal were considered existing plants at the time of proposal and we have received several comments on this determination. New nuclear units were not projected or incorporated into the setting of the proposed BSER.

The EPA also notes that the proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. The Clean Power Plan empowers states to chart their own, customized path to meet their goals in a manner that is sensitive to each state's unique circumstances. We are aware of six applications for new licenses under active review at the Nuclear Regulatory Commission. In addition, we have met with Georgia, South Carolina, and Tennessee on several occasions to discuss the proposed requirements for facilities under

construction and we are giving careful consideration to all comments received as we develop the requirements for the final Clean Power Plan.

4. For states that do not submit a state implementation plan, what mechanisms of enforcement will the EPA rely to impose a federal plan under the Clean Power Plan proposal? Please provide the statutory cite by which EPA will rely for each enforcement mechanism. Will EPA depend on 3rd party environmental groups to file suits against the states to push enforcement? Would EPA make compliance with the Clean Air Act a requisite for federal permits? If so, what permits?

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act provides for EPA to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could provide an example for states as they develop their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

5. In response to a question from Sen. Wicker about stranded assets, Acting Assistant Administrator McCabe testified that EPA is being careful "not to put plants in a position of stranding assets." Please explain what specific steps EPA has proposed -- or is contemplating -- to avoid stranding assets and investments existing facilities have made to comply with Clean Air Act and other environmental requirements.

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways, including avoiding stranded assets. Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029 and other topics that have been identified as potentially related to the remaining asset value of existing coal-fired generation.

6. Acting Assistant Administrator McCabe also testified that EPA is working with state regulators to see whether there is flexibility "to provide a path" for avoiding stranding assets. Please identify which states you are working with on this issue, and describe the "potential paths" being discussed.

The outreach to and response from the public on the Clean Power Plan has been unprecedented, including outreach to and feedback from stakeholders from all 50

states. More than 4.3 million comments have been submitted and EPA is examining and carefully considering all the issues raised in those comments.

7. Please provide a detailed explanation of the flexibility afforded to states by the Clean Air Act and EPA's 111(d) implementing regulations (40 C.F.R. part 60, subpart B) to grant variances to specific facilities allowing for different emission standards and longer compliance periods without increasing the burden on other facilities within the state.

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including requiring different standards from different individual sources.

8. Please identify with specificity the factors, other than plant age, location, design, or remaining useful life, that states may consider under 40 C.F.R. 60.24(f)(3) in determining when a less stringent standard or final compliance time is "significantly more reasonable." Would the fact that a plant recently made significant capital expenditures to install pollution controls to comply with Clean Air Act programs qualify for relief under 40 C.F.R. 60.24(f)(3)? If so, under what circumstances? If not, why?

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including requiring different standards from different individual sources.

9. In the preamble to the proposed Clean Power Plan, EPA states that "the flexibility provided in the state plan development process adequately allows for consideration of the remaining useful life of the affected facilities and other source-specific factors and, therefore, that separate application of the remaining useful life provision by states is unnecessary." In other words, EPA appears to be saying that because EPA has provided flexibility in state plans, states are prohibited from further consideration of remaining useful lives and other factors for facilities within their state. Please explain with specificity EPA's legal authority for limiting state flexibility in this way, including why such a restriction is not inconsistent with Clean Air Act section 111(d)(1), which provides that EPA "regulations...*shall permit* the State in applying a standard of performance.. to take into consideration, among other factors, the remaining useful life of the existing source." (Emphasis added).

Along with the proposed rule, the EPA included in the docket a Legal Memorandum providing background for the legal issues raised by the rule. In addition to the preamble, that Legal Memorandum details the EPA's understanding, at the time of proposal, of the legal issues in the state planning process. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

10. EPA further provides in the preamble to the proposed rule that, 'to the extent that a performance standard that a state may wish to adopt for affected EGUs raises facility-specific issues, the state is free to make adjustments to a particular facility's requirements on facility- specific grounds, so long as any such adjustments are reflected (along with any necessary compensating emission reductions) as part of the state's CAA section 111(d) plan submission." Please explain with specificity EPA's legal authority for conditioning states' variance authority in this way. Also, please explain how such a restriction is not inconsistent with CAA section 111(d) and would not restrict a state's flexibility to avoid stranding assets.

Along with the proposed rule, the EPA included in the docket a Legal Memorandum providing background for the legal issues raised by the rule. In addition to the preamble, that Legal Memorandum details the EPA's understanding, at the time of proposal, of the legal issues in the state planning process. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

Senator Booker:

1. Nuclear power plants currently provide 60 percent of the nation's emissions-free power generation, and are especially important in states like New Jersey. Many of these existing power plants are under market pressures that could lead them to be replaced with emitting generation. The Clean Power Plan proposal attempts to address existing nuclear power by factoring six percent of emissions-free nuclear generation into each state's target. In most states, including New Jersey, this provides a negligible incentive to avoid replacing this generation with gas.

    a. What changes are the EPA exploring to ensure the Clean Power Plan strongly encourages states to maintain nuclear generation as a critical resource?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. Nuclear energy can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including comments

about specific nuclear units and specific EGUs, and will continue to consider this and other comments raised as we develop the requirements for the final Clean Power Plan.

2. After the Clean Power Plan is finalized this year, states will be able to comply with it by designing state-specific plans that are responsive to state and local needs.

    a. As states design their implementation plans, what flexibility will they have to support existing nuclear power beyond any mechanisms or crediting specifically included in the proposed rule?

    b. Will there be ways states can specifically encourage nuclear units to operate beyond their initial licensing periods, to the extent units can do so safely?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. Nuclear energy can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. In the proposal, the EPA proposed to determine that finalizing construction of five new nuclear units at three plants and preserving nuclear power generation at existing plants across the country could be two cost-effective ways to avoid emissions from fossil fuel-fired power plants. One of the goals of the Clean Power Plan is to afford states the flexibility they require to meet the goals. The Clean Power Plan empowers the states to chart their own, customized path to meet their goals in a manner that is sensitive to the unique circumstances in each state. States may employ strategies, if they so choose, to encourage nuclear power. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the treatment of nuclear power, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

3. I have heard concerns about unintended consequences that could arise from the Clean Power Plan as proposed. Specifically, the dramatic early reduction requirements proposed in the rule may render several coal plants uneconomic, and therefore encourage states to turn to the rapid deployment of new natural gas combined cycle generation to satisfy their energy needs. Large amounts of new natural gas power plants have the potential to disincentivize construction of renewable and other clean energy technology for decades because states can comply with the Plan from the reduced carbon emissions from natural gas power plants. This has the potential to tilt the playing field in the power sector towards new natural gas fired power plant at the expense of renewable energy.

    a. Can the EPA avoid the potential prioritization of power from natural gas power plants and encourage states to adopt renewable and clean energy technology?

    b. Can you please provide me with an update on some of the modifications EPA is considering to ensure that the final Plan incentivizes the use of renewables to the maximum extent possible?

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals.

Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029.

4. Minority communities, including communities of color, are disproportionately affected by pollution. With President Clinton's 1994 Executive Order 12898, and President Obama's continued support for that executive order, the environmental justice movement has grown in the past couple of decades. The EPA, with the Clean Power Plan, has a unique platform to tackle issues of environmental justice and equity.

    a. Is the EPA contemplating requiring states to consider the environmental justice impacts of their state implementation plans in order to comply with the Clean Power Plan?

    b. If not, why not?

    c. If so, will the EPA offer states guidance on ways to measure compliance for the environmental justice impacts of states' implementation plans?

During our extensive outreach process, EPA met with environmental justice advocates and community leaders. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including comments about the proposal's consideration of environmental justice issues, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

Senator Fischer:

BUILDING BLOCK 1 (COAL PLANT EFFICIENCY)

- During our discussion at the hearing regarding Building Block 1 and the achievable heat rate improvements at coal-fired plants, you stated that EPA's assumption in going into the proposal "was not that every single source would be able to achieve exactly the amount of reductions [you] identified in each building block...[you] believed that some can do ***more*** in one area and some may choose to do less in other areas." In Nebraska, there are no coal-fired power plants that are capable of achieving a heat rate improvement of 6%. Did EPA receive public comment from any utilities or state departments of environmental quality that identified any plant of being able to achieve this rate improvement? Or a rate that is ***more*** than the target identified by EPA?

- Do you acknowledge that EPA misused the Sargent & Lundy study in setting the heat rate improvement goals for Building Block 1?

- Installation of additional pollution control equipment will degrade a unit's heat rate performance. Given that regulations such as MATS and Regional Haze are driving the installation of more control equipment on coal-fired units, what type of adjustments will be made in the rule to account for such EPA-driven degradations?

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures, including the heat rate improvement you mentioned which we identified as Building Block 1, qualify as part of the BSER to reduce emissions at regulated sources at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf), and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

<u>BUILDING BLOCK 2 (NATURAL GAS CC UTILIZATION)</u>

- Nebraska DEQ stated in its public comments that a 70% utilization rate at natural gas plants is neither sustainable, nor achievable. Nebraska does not have adequate natural gas supplies or pipeline infrastructure to sustain a 70% utilization rate of existing natural gas combined-cycle plants, particularly during colder months.[2] FERC memos indicate that last April, FERC's Office of Electric Reliability told EPA that its assumptions in building block 2 overestimated natural gas combined cycle capacity factors and that FERC "had doubts about the ability to expand the pipeline infrastructure as quickly as the emission targets implied."[3] Why didn't EPA go back and fix those assumptions based on FERC's feedback?

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures, including the natural gas capacity factor you mentioned, qualify as part of the BSER to reduce emissions at regulated sources at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf), and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including

the comments on the issues addressed in the Technical Support Documents and the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

BUILDING BLOCK 3 (RENEWABLES)

- The Nebraska Department of Environmental Quality thinks that its "disingenuous" to require states to undertake measures that the EPA itself may not have the authority to implement. What authority does EPA or the Nebraska DEQ have to mandate renewables?

In the proposal, the EPA estimated the potential renewable energy available to states as part of BSER by developing a scenario based on Renewable Portfolio Standard (RPS) requirements already established by a majority of states. The basis for Building Block three is discussed at length in the preamble to the proposal (79 FR 34830-34950) and the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf). EPA does not propose to require the inclusion of any particular type of measures as plans are developed for meeting the state goal. Instead, states are empowered to chart their own, customized paths to meet their goals.

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions.

INTERIM TARGETS

- In December, I led a group of 23 Republican Senators in writing to EPA regarding key concerns with the proposed Clean Power Plan. Senator McCaskill led a parallel letter that was sent by a group of Democrat Senators raising the same concerns, including the unrealistic interim targets (known as the "2020 cliff"). The consequences of these front-loaded targets have been echoed by many stakeholders. Will you commit to removing these interim targets?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways. Following publication of the proposed rule, the EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the legal memorandum, and will respond to the issues raised in those comments

when we issue a final Clean Power Plan.

RFS

- As you know, renewable fuels like ethanol and biodiesel are an important economic driver in my state. Unfortunately, the EPA has yet to release their yearly volumes for both 2014 and 2015. When do you plan to release this rule? Will it no longer contain methodology that artificially limits the market access of biofuels producers?

EPA has issued a proposed rule to establish renewable fuels volumes for 2014, 2015, and 2016, as well as biodiesel for 2017; the proposal was published in the Federal Register on June 10, 2015.

Senator Sessions:

1) In your written testimony, you state that if climate change is left unchecked, it will have "devastating impacts on the United States and the planet." You write further that "the costs of inaction are clear. We must act. That's why President Obama laid out a Climate Action Plan."

a. Does the United States Constitution authorize the executive branch to act unilaterally and impose regulatory mandates due to "inaction," or the absence of a valid authorization from Congress?

b. Bjorn Lomborg—who testified before the Clean Air and Nuclear Safety Subcommittee last Congress—wrote in the *Wall Street Journal* earlier this month about studies which have showed that in recent years, there have been fewer droughts, decreased hurricane damage, and a rise in temperatures that is 90% less than what many climate models had predicted. Mr. Lomborg's July 2014 testimony to the Subcommittee also indicated that the cost of climate "inaction" by the end of the century is equivalent to an annual loss of GDP growth on the order of 0.02%.

Given that recent temperature rises have been significantly less than what many climate models predicted, does it remain EPA's position that climate "inaction" will have "devastating impacts on the United States and the planet"? Does the agency agree or disagree with Mr. Lomborg's testimony regarding the minimal loss of GDP growth due to climate "inaction"? Please provide all information, data, and studies used to support EPA's conclusion.

c. You are advocating dramatic action at great cost to the American people to avert "devastating impacts" of global warming. Before such costs are imposed on the people, it is essential that you lay out in detail the "devastating impacts on the United

States" that EPA anticipates due to climate inaction. Please provide in detail these impacts as well as a timeline for when these impacts are expected to occur.

d. If the latest and best available science demonstrates that the climate impacts projected by EPA are not occurring, or are less than anticipated, would the agency be willing to reconsider its climate action policy?

The EPA is acting pursuant to Section 111(d) of the Clean Air Act, which provides for the establishment of standards of performance for categories of stationary sources that contribute to dangerous air pollution. In the preamble to the proposed rule, we discussed the scientific basis for our action at page 79 FR 34841.

2) EPA's Clean Power Plan is based in part on a "building block" which assumes states will achieve a 1.5% annual increase in demand-side energy efficiency.

a. Please provide the provisions in the United States Constitution and Clean Air Act which authorize EPA to base its Clean Power Plan on *consumers* increasing their energy efficiency. How does EPA intend to implement this particular "building block"?

b. Please provide the peer-reviewed or technical studies which EPA used to establish the "building block" for a 1.5% annual increase in demand-side efficiency.

c. To what extent did EPA account for population growth in establishing a "building block" whose purpose is to reduce aggregate demand on power plants?

The basis for EPA's fourth Building Block, demand-side energy efficiency, is the proposed conclusion that over time states can achieve electricity savings of 1.5% annually. This Building Block is one of four that make up the "best system of emissions reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 goals. The basis for Building Block four is discussed at length in the preamble to the proposal (79 FR 34830-34950) and the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf). EPA does not propose to require the inclusion of any particular type of measures, including demand-side energy efficiency, as plans are developed for meeting the state goal. Instead, states are empowered to chart their own, customized paths to meet their goals. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

3) EPA claims that the Clean Power Plan's "timing flexibility" will allow municipally owned utilities and some electric cooperatives to "use both short-term dispatch strategies and longer-term capacity planning strategies to reduce GHG emissions." However, these providers often purchase power from dedicated units, sometimes crossing state lines, on long-term contracts. Long-term contracts in many circumstances yield the most reliable pricing. How does EPA reconcile the interim goals contained in the Clean Power Plan with the need of municipally owned utilities and some electric cooperatives to enter into long-term contracts in order to provide reliable pricing for their customers?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways. Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

4) During a recent taxpayer-funded trip to the Vatican, Administrator McCarthy indicated that it is important to look after the well-being of persons living in poverty. What has EPA done to evaluate the adverse wage and employment impacts that have fallen on middle-class workers?

Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan. Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/20 1 4-06/documents/20 140602ria-clean-powerplan.pdf).

5) In recent years, the U.S. Army Corps of Engineers has proposed operational changes that would diminish the amount of hydropower available to communities in Alabama. Please explain how EPA's proposed carbon dioxide emissions rules account for Army Corps decisions which may adversely affect the ability of Alabama communities to rely on hydropower as a low-carbon source of energy.

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal.

Instead, it empowers the states to chart their own, customized path to meet their goals. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including comments about the proposal's consideration of existing zero-emitting energy sources, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

6) President Obama has stated that "we need to increase our supply of nuclear power," and that we should be "building a new generation of safe, clean nuclear power plants in this country." How many new reactors, in addition to those currently under construction, are necessary to enable compliance under EPA's base case for the proposed rule?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. New nuclear units were not projected and incorporated into the setting of the proposed Best System of Emission Reduction (BSER). The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. The Clean Power Plan empowers the states to chart their own, customized path to meet their goals in a manner that is sensitive to the unique circumstances in each state.

7) In its 2012 decision remanding the Nuclear Regulatory Commission's Waste Confidence rule, the DC Circuit Court observed:

> *"At this time, there is not even a prospective site for a repository, let alone progress toward the actual construction of one... The lack of progress on a permanent repository has caused considerable uncertainty regarding the environmental effects of temporary [spent nuclear fuel] storage and the reasonableness of continuing to license and relicense nuclear reactors."*

The Administration's actions to shut down the Yucca Mountain program caused a federal court to question the reasonableness of licensing nuclear plants, triggering a two-year licensing moratorium at the NRC. The NRC has since revised its rule, which has once again been challenged by the NRDC, a proponent of the Clean Power Plan. Given that nuclear energy generates nearly two-thirds of our nation's carbon-free electricity, how does EPA envision achieving carbon reductions if our largest source of carbon-free electricity is threatened based on the Administration's decision to illegally abandon the Yucca Mountain project?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a reliable, base load source of low-carbon power. New nuclear units were not projected and incorporated into the setting of the proposed BSER. The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. The Clean Power Plan empowers the states to chart their own, customized path to meet their goals in a manner that is sensitive to the unique

circumstances in each state.

Senator Sullivan:

1) Has the EPA conducted any analysis specific to Alaska that proves the Proposed Rule on existing plants can be reasonably implemented and would not impair electricity reliability in Alaska? Do you have modelling or cost information specific to Alaska? Do you have any analysis specific to Interior Alaska? Please provide all relevant data.

Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan. Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/20 1 4-06/documents/20 140602ria-clean-powerplan.pdf).

2) How much flexibility is the EPA prepared to provide states if efficiency upgrades to power plants, building new generation sources, new or upgraded transmission lines or new natural gas pipelines are slowed down or stopped because of environmental reviews or litigation?

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering the time it will take to put in place the necessary infrastructure.

3) Alaska's grid is quite limited, and most of our utilities are not interconnected. Also, Alaska is islanded, as we are not connected to the North American power grid. Does the Proposed Rule for existing plants contemplate this scenario?

The Clean Power Plan proposal contemplated that some aspects of the four building blocks might apply differently in particular locations, including Alaska and Hawaii. One example of this is on 79 FR 34867, where we proposed to treat Alaska and Hawaii as separate regions in estimating the reductions they could achieve by increasing renewable energy generation under Building Block 3.

4) Alaska has a single transmission line north and south of Anchorage with limited transference capacity. One of the presumptions of EPAs "building blocks" is the notion that more efficient combined-cycle gas generation can be substituted for coal-fired generation. Will there be exceptions made for states where the grid does not allow the transfer of sufficient quantities of energy to replace local coal-fired

generation?

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering the time it will take to put in place the necessary infrastructure.

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures, including the increased utilization of existing natural gas capacity which we identified as Building Block 2, qualify as part of the BSER to reduce emissions at regulated sources at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf),and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including comments on the availability of transmission to deliver energy where there are dispatch changes, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

5) Currently, natural gas powered electricity generation is not available in Interior Alaska, and due to geographical challenges,, natural gas may not be an economical option for electricity generation in the near future. How much flexibility is EPA prepared to provide based on geographic challenges such as those faced in Interior Alaska?

The EPA's proposed state goals do not impose specific requirements on any individual source or sub-region. The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering the time it will take to put in place the necessary infrastructure. The proposal discussed the availability of new natural gas capacity at 79 FR 34857.

6) EPA's Legal Memorandum accompanying the Proposed Rule for existing plants states, "Central to our Best System of Emission Reduction (BSER) determination is the fact that the nation's electricity needs are being met, and have for many decades been met, through a grid formed by a network connecting groups of Electric Generating Units (EGUs) with each other and, ultimately, with the end users of

electricity... Through the interconnected grid, fungible products—electricity and electricity services—are produced and delivered by a diverse group of EGUs operating in a coordinated fashion in response to end users' demand for electricity." How does this rationale apply to Alaska? Please explain.

Along with the proposed rule, the EPA included in the docket a Legal Memorandum providing background for the legal issues raised by the rule. In addition to the preamble, that Legal Memorandum details the EPA's understanding, at the time of proposal, of the legal rationale for our proposed determination of BSER. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the interconnected nature of the electric grid and comments on specific locations where there may be more localized needs, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

7) What consultation occurred with states during the rulemaking process? Were any State of Alaska officials involved in the drafting of the proposed rules?

The outreach to and response from the public on the Clean Power Plan has been unprecedented, including outreach to and feedback from stakeholders from all 50 states. EPA has met with and heard from both government and utility stakeholders in Alaska. More than 4.3 million comments have been submitted and EPA is examining and carefully considering all the issues raised in those comments.

8) Do you think the resources that will be spent in Alaska complying with the Proposed Rule on existing plants could be better spent helping our bush communities move away from expensive diesel generation and towards more cleaner and inexpensive options?

The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs.

9) Fairbanks is reliant on coal fired power. A recent University of Alaska study determined that coal fired technology is the only viable affordable option for Interior Alaska's electric generation. Fairbanks is also in a PM 2.5 nonattainment area. If our Interior coal plants shut down, or the rates increase even higher than they are already, more Fairbanks residents will begin heating their homes with wood stoves and further aggravate the PM 2.5 issue. Have you given any thought to how the EPA will help mitigate the social and economic impacts on communities if these rules are finalized? Has the EPA conducted any analysis on unrelated consequences of this Proposed Rule on existing plants, such as the PM2.5 issue?

The EPA's proposed state goals do not impose specific requirements on any individual source. The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering the time it will take to put in place the necessary infrastructure.

Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan. Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/20 1 4-06/documents/20 140602ria-clean-powerplan.pdf).

Senator Vitter

Focusing on NRDC Relationship with EPA

Under the Clean Air Act §307(d), EPA is required to post all written comments and documentary information received in the docket, including information obtained through emails, phone calls, and meetings with Agency officials. Documents obtained by the Committee pursuant to a request for communications regarding the ESPS and NSPS rules between EPA and NRDC reveal a significant amount of correspondence that EPA did not post to the rulemaking docket. While the requirement does grant the Agency discretion over what information is material to the rule, the fact more than a dozen phone calls and meetings on the rules were excluded from the docket raises questions over EPA's level of transparency in developing the rules.

1. Ms. McCabe, as you are aware, I submitted requests for documents on these rules last Congress. While I understand the Agency is still producing documents to the Committee, a review of those in the Committee's possession reveal a pattern of frequent meetings and phone calls between EPA and NRDC. Not only am I concerned by the increased access NRDC had to EPA officials developing these rules, but there is a real concern over a number of meetings and calls that EPA did not include in the rulemaking docket. Ms. McCabe, are you aware of such correspondence not being posted to the docket? Why do you think some correspondence with NRDC over others was excluded from the docket? Will you commit to correcting the docket?

Any rule we finalize will comply with all applicable statutory public participation requirements, including posting documents to the docket.

2. In one of the emails you released last fall as part of your investigation into EPA's relationship with NRDC. One email in particular is important given the fact that

many states are just going to refuse to implement a rule they view as illegal and an inappropriate usurpation of power.

ESPS requires states to submit a state implementation plan (SIP) for EPA's approval, which demonstrates how the state will meet emission goals. Under 111(d), EPA has the authority to issue a federal implementation plan (FIP) for states that do not submit a SIP or submit an unsatisfactory SIP. While the EPA has said ESPS encourages state flexibility in developing SIPs, evidence suggests EPA is being disingenuous and is inclined to issue a backstop FIP. An email obtained by the Committee reveals that the idea of a federal takeover of states through ESPS FIPs may have come from the NRDC. In the email, NRDC attorney Dave Hawkins advises senior EPA air official Joe Goffman how EPA can tamper with state compliance dates and issue backstop FIPs.

3. Ms. McCabe, documents obtained by the Committee suggests that NRDC helped develop the Agency's strategy for issuing a model FIP to circumvent state implementation challenges. [SHOW POSTER] Specifically, in June 2013—before the rule was proposed—NRDC attorney Dave Hawkins advised senior EPA air official Joe Goffman, "as long as the compliance date for the FIP 111(d) emission limits is a few years after the SIP submission deadline, it appears that EPA can promulgate backstop FIP limits even in advance of the June 2016 SIP submission date." Why was NRDC providing such detailed advice to EPA before the rule was even proposed? Prior to the email, had EPA considered issuing a model FIP? Did NRDC's advice have any bearing on the model FIP EPA is currently developing? Is EPA in fact planning to issue its model FIP before the SIP deadline?

The Clean Air Act provides for EPA to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could provide an example for states as they develop their own plans. EPA fully expects that, as contemplated by the Clean Air Act, states will want to submit their own plans, and will use that as an opportunity to tailor their plans to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

4. Ms. McCabe, I think EPA is delusional if the agency believes there isn't going to be a serious problem with a number of states refusing to implement the ESPS and put forward a state implementation plan. Has EPA begun developing a litigation strategy with NRDC to force compliance or otherwise enter into settlement agreements? And has NRDC, which is perhaps America's largest environmental law firm, discussed options for NRDC to help pay for energy price increases. In other words, NRDC is worth hundreds of millions of dollars, if they're so comfortable increasing energy prices on America's poor and elderly have they discussed with you options for using some of their endowment to help the consumers they plan on hurting

The EPA is not coordinating with outside organizations in the manner you suggest.

Social Cost of Carbon

EPA's regulatory impact analysis for ESPS is primarily based on climate benefits derived from the convoluted 2013 social cost of carbon (SCC) estimates, as well as of course the PM benefits that EPA's now infamous fake CIA agent John Beale worked on. You have made several requests, along with other members of Congress, for information on the Interagency Working Group (IWG) that developed the estimates. None of the Administration's responses have been fully responsive to such requests. There is still zero transparency over who participated and the extent of their participation.

1. Ms. McCabe, you may recall I previously asked whether or not you participated in the Interagency Working Group developing the social cost of carbon (SCC) estimates, and I know at that time your answer was no. I also know that despite Congressional requests for information, the SCC remains stuck in a black box. There is still zero transparency. And since we last spoke on this topic, the EPA proposed the ESPS—one of the most expansive and expensive regulations—which relies on climate benefits from the flawed and secretive SCC. That said, what was your role in developing the cost- benefit analysis for ESPS which relied on the SCC? Have you had any interaction with the SCC Interagency Working Group? Why have you not provided my office with the names and titles of those officials under your supervision in the Office of Air Radiation that have participated in the Interagency Working Group?

Consistent with the Office of Management and Budget's guidance, the SCC estimates are used in the EPA's analyses of regulations subject to benefit-cost analysis under E.O. 12866 and 13563 to estimate the welfare effects of quantified changes in carbon dioxide (CO2) emissions. The SCC estimates were applied in the benefit-cost analysis for the proposed Clean Power Plan in the same way they are for other EPA regulatory actions subject to E.O. 12866 and 13563.

As noted in the EPA's response to previous letters from you on this topic, EPA officials from both the Office of Policy (OP) and the Office of Air and Radiation (OAR) participated in the interagency SCC discussions, including technical staff (economists and climate scientists) from the National Center for Environmental Economics in OP and the Office of Atmospheric Programs in OAR. The EPA staff provided technical expertise in climate science and economics to the broader workgroup as needed. For example, the professional economic staff used the modeling input parameters developed by the interagency group and oversaw the primary modeling and calculations for both the 2010 and the 2013 SCC estimates. Consistent with the Administration's commitment to transparency, the EPA has, upon request, provided to researchers and institutions more detailed output than is presented in the 2010 or 2013 Technical Support Document (TSD), as well as instructions, input files, and model source code.

GAO completed a review of the process the Interagency Working Group (IWG) used to develop the SCC estimates and published a report in 2014, "Regulatory Impact

Analysis: Development of Social Cost of Carbon Estimates," that discusses the participating entities, and processes and methods the IWG used to develop the 2010 and 2013 SCC estimates. After interviews with scientists and officials who participated in the development of the SCC, along with reviews of relevant technical documents, the GAO concluded that the IWG (1) used consensus-based decision-making, (2) relied on existing academic literature and modeling, and (3) took steps to disclose limitations and incorporate new information by considering public comments and revising the estimates as updated research became available. The GAO also highlighted the various opportunities for public input on the SCC in general and the interagency estimates, including public comments received in response to numerous rulemakings. The GAO concluded that the level of documentation for this interagency exercise was equivalent to those from other comparable interagency exercises.

Finally, while I do not attend IWG meetings, I am aware that the Office of Management and Budget (OMB) recently responded to public comments received through OMB's solicitation for comments on the SCC. The OMB comment solicitation was conducted independently from, and in addition to, multiple opportunities for comment on individual agency rulemakings. As explained in the response document, after careful evaluation of the full range of comments, the IWG believes the SCC estimates continue to represent the best scientific information on the impacts of climate change available for incorporating the impacts from carbon pollution into regulatory analyses and continues to recommend their use until further updates can be incorporated into the estimates. Therefore, EPA will continue to use the current SCC estimates in the analysis of the Clean Power Plan.

Technical Questions

1. In his Presidential Memorandum directing the Agency to undergo this rulemaking process, President Obama explicitly directs EPA to take "into account other relevant environmental regulations and policies that affect the power sector" and to "tailor regulations and guidelines to reduce costs". In the event that a coal-fired power plant has invested hundreds of millions of dollars to comply with EPA rules such as the Mercury Air Toxics Standard and the Cross State Air Pollution Rule, how does EPA's Clean Power Plan ensure that such an entity will be able to meet its financial obligations due to these investments?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways, including avoiding stranded assets. Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029 and other topics that have been identified as potentially related to the remaining asset value of existing coal-fired generation.

2. Beyond achieving a certain level of efficiency gains, there are no commercially

available technologies to reduce CO2 emissions from coal-fired power plants. According to EPA's regulatory impact analysis, the Clean Power Plan will increase electricity rates. For certain coal plants operating in organized electricity markets, this increased cost is likely to reduce plant production to the extent that alternative lower emitting sources of production are less expensive and hence will operate at higher utilization rates. Thus, the financial impact on the generating unit will be a combination of lower revenues associated with lower production and lower earnings associated with higher costs not being offset by higher sales revenues. As CO2 emission standard compliance costs increase, reductions in production will increase.

These increased costs will lead to different outcomes for certain coal-dominated entities, including rural electric cooperatives, municipals, and merchant power producers. Higher electricity costs will be either (1) borne directly by ratepayers, in the case of a cooperative or municipal; or (2) result in decreased financial operating margins, in the case of a generator dependent solely on the wholesale market for revenues. Do you agree with these conclusions? If not, please explain why. Please further explain how EPA plans to address these disproportionate impacts, and how a state in a SIP would be allowed to deal with them.

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways, including avoiding stranded assets and maintaining electric reliability. Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan. Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. This assessment found that nationally, in 2030 when the plan is fully implemented, average electricity bills would be expected to be roughly 8 percent lower than they would been without the actions in state plans. That would save Americans about $8 on an average monthly residential electricity bill, savings they wouldn't see without the states' efforts under this rule. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/20 1 4-06/documents/20 140602ria-clean-powerplan.pdf).

<u>European Disaster Question</u>

1. Fortunately last congress we had some really great witnesses that were able to testify on the state of climate science, and the fact that our climate always has been and always will be changing, as well as to the impacts policies similar to what EPA is trying to implement have had on the citizens and economies of European countries that have adopted similar requirements. Can you provide for me your thoughts on how Germany, Spain, France and the U.K. have benefited from their global warming polices and energy mandates? Specifically, can you walk me through how the changes in energy prices have impacted the poor and elderly as well as the economies and investment in those countries? And of Germany, Spain, France and the U.K., which ones do you think stand out as a good

model for what EPA wants to do with the ESPS and regulating CO2?

The EPA did not use any European country as a model in designing the Clean Power Plan.

Science Questions

1. Is carbon dioxide critical to the process of photosynthesis and life on earth?

Yes.

2. As EPA moves forward with regulating carbon dioxide will carbon dioxide be the first gas regulated under the Clean Air Act that humans exhale at a higher rate than they inhale?

No.

3. What percent of CO2 in the atmosphere is emitted by humans?

Approximately 30% of the CO2 level in earth's atmosphere today is a result of emissions caused by human activities, primarily the combustion of fossil fuels.

4. In earth's geologic history is their evidence that CO2 in the atmosphere has been higher than it is today?

Yes, though not for at least 800,000 years.

5. In 2009 Al Gore predicted "The entire north polar ice cap will be gone in 5 years." Did this prediction come true?

I am not familiar with the quote you mention. When referencing Arctic sea ice trends, the EPA relies on the major scientific assessments and standard sources like the National Snow and Ice Data Center. Arctic sea ice has continued to decline, at an average of 13% per decade in September over the satellite era. The Arctic sea ice minimum in September of 2012 was the lowest extent ever observed, at 49% below the 1979 to 2000 average.

6. Stephen Schneider, who authored The Genesis Strategy, a 1976 book warning that global cooling risks posed a threat to humanity, later changed that view 180 degrees when he served as a lead author for important parts of three sequential IPCC reports. In an article published in Discover, he said: "On the one hand, as scientists we are ethically bound to the scientific method, on the other hand, we are not just scientists, but human beings as well. And like most people, we'd like to see the world a better place, which in this context translates into our working to reduce the risk of potentially disastrous climatic change. To do that, we need to get some broad-based support, to capture the public's imagination.

That, of course, entails getting loads of media coverage. So we have to offer up scary scenarios, make simplified, dramatic statements, and make little mention of the doubts we might have. Each of us has to decide what the right balance is between being effective and being honest." Does EPA agree with these statements?

The EPA is committed to using sound science and data as the foundation for protecting human health and the environment. For climate change, we rely primarily on the scientific assessments of the U.S. Global Change Research Program (USGCRP), the United Nations Intergovernmental Panel on Climate Change (IPCC) and the National Research Council (NRC) of the National Academies. These assessments synthesize and assess research across the entire body of scientific literature, including consideration of uncertainty, in their development of key scientific findings.

7. Timothy Wirth, former U.S. Senator (D-CO) and former U.S. Undersecretary of State for global issues, at the first UN Earth Climate Summit Rio de Janeiro stated: "We have got to ride the global warming issue. Even if the theory of global warming is wrong, we will be doing the right thing in terms of economic policy and environmental policy." Does EPA agree with these statements?

I am not familiar with the statement you mention. That said, as the National Research Council of the National Academy of Sciences has stated, "there is a strong, credible body of evidence, based on multiple lines of research, documenting that climate is changing, and that these changes are in large part caused by human activities."

8. Speaking at the 2000 U.N. Conference on Climate Change in the Hague, former President Jacques Chirac of France explained why the IPCC's climate initiative supported a key Western European Kyoto Protocol objective: "For the first time, humanity is instituting a genuine instrument of global governance, one that should find a place within the World Environmental Organization which France and the European Union would like to see established." Does EPA support reaching a treaty in Paris so that there can be a "global governance" of U.S. economic policy?

No.

9. On November 14, 2010, Ottmar Edenhofer, a U.N. IPCC Official, stated, "First of all, developed countries have basically expropriated the atmosphere of the world community. But one must say clearly that we redistribute de facto the world's wealth by climate policy. Obviously, the owners of coal and oil will not be enthusiastic about this. One has to free oneself from the illusion that international climate policy is environmental policy. This has almost nothing to do with environmental policy anymore..." Does EPA agree with these statements?

I am not familiar with the statement you mention. The EPA's analysis of the Clean Power Plan proposal makes clear that there is a significant role for coal and natural gas in our electricity generating mix going forward.

10. Attorney David Sitarz, a key editor of the UN's Agenda 21 document, stated at the UN's 1992 Conference on Environment and Development in Brazil, "Effective execution of Agenda 21 will require a profound reorientation of all human society, unlike anything the world has ever experienced—a major shift in the priorities of both governments and individuals and an unprecedented redeployment of human and financial resources. This shift will demand that a concern for the environmental consequences of every human action be integrated into individual and collective decision-making at every level." Does EPA agree with these statements?

I am not familiar with the statement you mention. The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants.

Other

1. Section 111 of the Clean Air Act provides EPA the authority to regulate new and existing "stationary sources" which it defines under subsection (a) as "any building, structure, facility, or installation which emits or may emit any air pollutant". That seems pretty straight forward, and yet you propose a rule for existing sources that would force states to significantly increase renewable — which do not emit any air pollutants. What percent of the claimed reductions under your proposed rule does EPA anticipate will come from increases in renewable energy? Given the plain meaning of the statute, how can you set a standard that in essence relies on such an increase in renewable power — a non-emitting source of electricity not covered by Section 111?

Along with the proposed rule, the EPA included in the docket a Legal Memorandum providing background for the legal issues raised by the rule. In addition to the preamble, that Legal Memorandum details the EPA's understanding, at the time of proposal, of the legal issues in the proposal. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

2. Section 111(d), the authority for the Clean Power Plan, regulates existing sources. However, your proposed rule seeks comment on including new sources in a state's 111(d) plan. What new sources do you think should be included in a state's plan for existing sources. Isn't it true that Section 111 has a separate subsection for the regulation of new sources under subsection (b) --- not (d). Why do you think you have the authority to regulate new sources under section 111(d)?

Along with the proposed rule, the EPA included in the docket a Legal

Memorandum providing background for the legal issues raised by the rule. In addition to the preamble, that Legal Memorandum details the EPA's understanding, at the time of proposal, of the legal issues in the proposal. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

3. Your proposed rule for NEW units would require CCS for new coal units despite the fact that CCS has not been adequately demonstrated and is not considered to be commercially viable. In fact a recent DOE authorized study just concluded in January that "CCS does not yet meet this best system of emission reduction (BSER) standard, because it has not yet been adequately demonstrated." (pg 103 of http://insideepaclimate.com/sites/insideepaclimate.com/files/documents/jan2015/epa2015_0144.pdf) What will happen to your existing plant rule if your new rule is overturned in Court? Do you believe you have the authority under Section 111 to issue an existing plant rule if your rule for new units is vacated?

Along with the proposed rule, the EPA included in the docket a Legal Memorandum providing background for the legal issues raised by the rule. In addition to the preamble, that Legal Memorandum details the EPA's understanding, at the time of proposal, of the legal issues in the proposal. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Legal Memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

4. There are many coal plants out there that have just spent millions of dollars to comply with the MATS rule. And yet, under your proposed rule, these units will likely be allowed to run only at very low capacity levels that make the units uneconomical. Has there ever been a major rule making by EPA where the standard was not based on specific control technologies but rather a limit on how often a unit can be run? Do you believe the CAA allows you to establish regulations that can force the closure of existing coal plants by establishing de-facto limits on how often they can run?

The EPA's proposed state goals do not impose specific requirements on any individual source. The proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals.

5. If you are forced to issue a federal implementation plan, which entities do you have

enforcement authority over in the context of this rule making? Do you believe EPA can enforce renewable energy targets or demand side management programs in a state that fails to submit an implementation plan? Does your authority extend to the states directly or just to the existing stationary sources as defined by the Clean Air Act? If your answer is that you are working through these issues now—how EPA can propose a rule without knowing the limits of its own regulatory authorities?

Under a state plan approved under Clean Air Act (CAA) §111(d), all measures that a State adopts into the plan and submits to EPA for approval, and that EPA approves, become federally enforceable. Under the proposed rule, the states have significant discretion in determining what types of measures to adopt and submit to EPA for approval. The EPA will approve a state plan if it meets the state goal. EPA discussed the concept of federal enforceability, including the availability of citizen suits, in the preamble to the proposed rule (79 Fed. Reg. 34,830, 34,902-34,903) and the accompanying legal memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, PAGE 4) and the agency will review any comments we receive on this issue.

15-001-1199

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 30 2015

OFFICE OF
CONGRESSIONAL AND
INTERGOVERNMENTAL
RELATIONS

The Honorable James Inhofe
Chairman
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Barbara Boxer
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman and Ranking Member Boxer:

Thank you for your letter dated July 7, 2015, which included questions for the record following the hearing to consider the nomination of Ann Dunkin to be Assistant Administrator in the Environmental Protection Agency's Office of Environmental Information. Ms. Dunkin testified before the committee on June 11, 2015. Enclosed please find responses to those questions. If you have questions, you may contact me or your staff may call Christina J. Moody of my staff at (202) 564-0260, or email at moody.christina@epa.gov.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

Senator Sessions Questions for Ann Dunkin, Nominee, Assistant Adminstrator, EPA Office of Environmental Information

Ms. Dunkin, in my April 2015 letter, I asked the Administrator questions related to the Office of Information collection's stated purpose to "ensure that environmental information is efficiently and accurately collected and managed." These questions were not answered in the Acting Assistant Administrator's recent response.

Question 1: Did the Administrator or Acting Assistant Administrator for the Office of Air consult you before choosing to not answer these questions?

Question 1a: Were you made aware of the April 2015 letter I and other members of this Committee sent to the Administrator?

Question 2: What policies do the Office of Information Collection and other offices have in place to monitor and verify the accuracy of agency climate projections?

Response:
The EPA does not collect and manage information on climate impact projections. Rather, the EPA continues to rely on organizations such as the NRC, the United States Global Change Research Program, and IPCC, to bring together large numbers of climate science experts to synthesize available data, modeling, and research on climate change. These reports are subjected to rigorous levels of peer review, and form the basis of the major scientific assessments made by the organizations previously mentioned. It is with confidence that the EPA utilizes this data. Additionally, key climate monitoring functions are performed within other governmental agencies such as the National Oceanic and Atmospheric Administration, as well as the National Aeronautics and Space Administration, while the Department of Energy has a program dedicated to climate model intercomparison and evaluation. As the expertise resides within these important agencies, the EPA continues to benefit from the robust federal and academic research enterprise focused on the credibility and integrity of climate data.

15-001-1197

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C 20460

JUL 30 2015

OFFICE OF
CONGRESSIONAL AND
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RELATIONS

The Honorable James Inhofe
Chairman
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Barbara Boxer
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman and Ranking Member Boxer:

Thank you for your letter dated July 7, 2015, which included questions for the record following the hearing to consider the nomination of Thomas Burke to be Assistant Administrator in the Environmental Protection Agency's Office of Research and Development. Mr. Burke testified before the committee on June 11, 2015. Enclosed please find responses to those questions. If you have questions, you may contact me or your staff may call Christina J. Moody of my staff at (202) 564-0260, or email at moody.christina@epa.gov.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

Chairman Inhofe Questions for Thomas Burke, Nominee, Assistant Administrator, EPA Office of Research and Development

DUAL ROLE OF AA FOR ORD AND SCIENCE ADVISOR

The National Academy of Sciences previously reported that if the Assistant Administrator of the Office of Research and Development (ORD) is also the Science Advisor for the full agency it creates a conflict. Specifically, NAS concluded: "no single individual could reasonably be expected to direct a world-class research program in ORD while also trying to improve scientific practices and performance throughout the rest of the agency." Former Administrator Lisa Jackson took a step towards implementing this recommendation in 2009 by separating the offices. Even the Union of Concerned Scientists, the former employer of current EPA Scientific Integrity Official, Dr. Francesca Grifo, supported separating the offices, noting "This separation is a good thing, as a joint appointment makes it considerably more difficult for scientific integrity investigations to take place within ORD." During your June 11, 2015, nomination hearing, you stated that you planned, if confirmed, to serve a dual role.

Question 1: Doesn't this seem like a step in the wrong direction and counter to NAS recommendations?

Question 1a: As AA for ORD you will be managing nearly 1,800 employees, while the Science Advisor manages a team of about 30. How will you balance both roles?

Response:
After consultation with the NRC, the EPA Administrator and I believe that if the Assistant Administrator for the EPA's Office of Research and Development also served as the EPA Science Advisor that it would fulfill the recommendations of the NRC.

The dual role would provide the additional resources necessary to coordinate, plan, and execute science across the EPA; ensure there is a senior science official who could speak for the EPA on science issues; and help ensure strong scientific integrity in the agency's work. This individual would be very well positioned to help scientists across the EPA reach consensus on scientific issues.

Having served as the Deputy Assistant Administrator and the EPA Science Advisor since January of this year, it is clear to me that it is possible for the AA for ORD to direct the world-class research program in ORD and serve as the EPA Science Advisor. In fact, there is an important advantage to this model. ORD employs some of the nation's brightest scientists working on the most pressing environmental issues of the day. ORD research is well-aligned with the EPA's mission, and thus it produces science that informs the agency's decision-making needs. Because of this, the ORD AA has a top notch scientific staff to support him or her. Additionally, the ORD AA has the support of a stellar team of strong science managers in ORD. The EPA also has a built-in mechanism that would provide a check on any potential or perceived conflict of responsibility – the Science and Technology Policy Council (STPC) – a group of senior the EPA representatives that provide input on science and technology policy issues and ensures the EPA's science is well-coordinated.

If confirmed, I will draw on all of the available resources, and I feel confident that I will be able to balance both roles.

EPA RELIANCE ON OLD DATA

In 2004, the National Academy of Science cautioned against relying on decades old data for developing new National Ambient Air Quality Standards (NAAQS). Following your December 17, 2013, nomination hearing, you committed to "reviewing this issue and working to ensure that the Integrated Science Assessments that provide the foundation for NAAQS decisions reflect the best possible science." During your June 11, 2015, nomination hearing I asked what steps you have taken to ensure the agency is no longer relying on outdated science assessments, to which you said "there has been tremendous progress in doing that, to revisit and constantly upgrade the science."

Question 1: Specifically, what steps have you taken to end the use of this outdated data?

Question 1a: If no steps have been taken, why?

Question 1b: Don't you agree with the NAS recommendation? If not, why?

Response:
EPA's work to protect public health and the environment through programs such as decisions to retain or revise the National Ambient Air Quality Standards (NAAQS) is very important. I agree with the National Academy of Sciences (NAS) that NAAQS decisions must be based on the best possible science and am pleased to find that this is the case. After the 2004 NAS report, EPA revised the process to evaluate the science and has created Integrated Science Assessments (ISA) to provide the scientific basis for NAAQS decisions. ISAs have been completed for every NAAQS pollutant in the last several years, and in each instance there was extensive peer review by the independent Clean Air Scientific Advisory Committee of the EPA's Science Advisory Board and consideration of public comments. The quality of this review and the manner in which science informs NAAQS decisions has been lauded by the Administrative Conference of the United States, a Federal Advisory Committee (https://www.acus.gov/report/science-regulation-final-report). Additionally, the 2011 NRC report on EPA's draft IRIS assessment of formaldehyde complimented the revisions to the NAAQS documentation and review process. If confirmed, I look forward to working to ensure that the Integrated Science Assessments reflect full consideration of the best available science.

TRANSPARENCY

When asked during your June 11, 2015, nomination hearing about your efforts to make underlying data used to justify EPA regulations public, you said "there has been tremendous progress and I would be happy to provide more details on that."

Question 1: Please provide details on specifically what steps you have taken as Science Advisor to increase data access?

Question 1a: What additional steps do you plan to take to increase data access?

Response:
EPA is deeply committed to transparency. We are working rigorously to increase data access by building on and expanding the agency's existing efforts under the Open Government initiative (https://www.whitehouse.gov/Open/), including to make available the manuscripts and data supporting conclusions in EPA-funded publications.

An example of this Open Government effort that may be expanded would include the use of the Environmental Dataset Gateway (EDG) for storing and making data accessible. EDG is a gateway that anyone can use to search for publicly available data resources made available by the EPA's Program Offices, Regions and Laboratories. The EPA also now has in place the Enterprise Information Management Policy (EIMP; http://www2.epa.gov/open/enterprise-information-management-policy-eimp-cataloging-information-procedure) which ensures that information produced by, funded by, or received per regulated reporting and/or federal-wide requirements and subsequently held or cataloged in information management systems by the agency is easy to discover, understand, access, and reuse in a secure manner so it can be used with a broad array of applications and analytics to support the agency's mission and stakeholder needs.

Question 2: Independent peer review and independent verification of research results are key hallmarks of sound science. Do you agree that scientific confidence is increased when data is made available in a manner that allows for independent analysis and substantial reproduction of calculations and results by peer reviewers and other qualified scientists?

Response:
As I have stated previously, transparency and scientific integrity are very important to the agency's work. I understand that the EPA has taken appropriate and substantial steps to increase transparency and public access to information. However, it is essential to protect the privacy of individuals who have served as subjects in studies and their personal health information. If confirmed, I intend to continue the agency's ongoing efforts to ensure that scientific and technical information that is intended to inform or support agency decisions continues to be based on the best available science.

I under that internally the Integrated Risk Information System (IRIS) program no longer relies on definitions that are still publicly used (for example, the definition of the reference dose and the meaning of confidence values in IRIS), yet the EPA has never used any formal stakeholder or public or peer review process to implement these changes. Instead the EPA seems to be relying on a 2002 review received from the EPA's Risk Assessment Forum Technical Panel and appears to pick and choose which suggestions they will follow and which they will not implement.

Question 2a: Will you commit to engaging stakeholders before changes to critical definitions and methodologies in the NAAQS and IRIS program are made?

Response:
Stakeholder engagement is an important and informative part of the agency's work. The IRIS assessment development process provides multiple opportunities for stakeholder engagement, and the IRIS Program is convening bimonthly public science meetings to discuss IRIS assessments and related scientific issues. Likewise, there are multiple opportunities for stakeholder engagement in the NAAQS process. If confirmed, I will work to ensure appropriate stakeholder engagement occurs in the NAAQS and the IRIS Program.

PEER REVIEW

Question 1: Will you committ to more transparent procedures for determining what EPA documents are "highly influential scientific" documents pursuant to the Information Quality Act.

Response:
Yes, if confirmed, I will commit to more transparent procedures for determining what the EPA documents are "highly influential scientific" documents pursuant to the Information Quality Act.

GRANTS

Although the Shelby Amendment, otherwise known as the Data Access Act, provides for agency access to underlying data that is federally funded, there are instances in which EPA does not have full access to funded data.

Question 1: Will you commit to implementing provisions in grants and contracts that maintain rights to obtain data first produced under an award?

Response:
The EPA is committed to increased public access to the EPA-funded data supporting conclusions of peer-reviewed publications and is working diligently to strike the right balance between supporting the publics' right-to-know while ensuring that in its role as a regulatory agency, it provides the right level of protection for specific categories of scientific data. If confirmed, I will commit to working with others in the Agency to see what steps can be taken to increase public access to such data from grants and contracts.

IMPROVING RISK ASSESSMENTS

EPA's Risk Characterization Policy calls for the agency to develop and use multiple risk descriptors. The 2014 National Research Council IRIS review recommended the IRIS program develop central and lower-bound risk estimates.

Question 1: Per these recommendations, do you commit to ensuring the IRIS program present risk ranges – including low, central and upper-bound estimates?

Response:
The EPA is committed to further improving the IRIS program and is working to address the NRC's 2014 recommendations for IRIS. During my time at the agency, I have seen that the EPA takes the NRC's recommendations very seriously. If confirmed, I look forward to working with the IRIS program as they make further changes to address the NRC's recommendations and providing a more robust characterization of risk estimates.

Question 2: Certain substances-for which there may also be environmental exposure - are produced naturally in the body as a result of normal metabolism and physiology.
Do you agree that when ORD programs assess potential risks from such substances, it's critical to derive the range of potential risks arising from both sources-internal and environmental—and to communicate the degree to which these estimated risks from internal and external sources are plausible and realistic?

Response:
This is an important consideration in understanding and managing incremental risk from environmental exposure. Since there are many natural products of metabolism that may have toxic effects if they are out of balance, the fact that they are naturally produced does not make them "safe" at all doses.

Question 3: Consistent with the National Research Council 2011 Formaldehyde report, the NRC 2014 IRIS report recommended EPA improve its methods for study evaluation and integration. Do you commit to use clear criteria for judging quality of all key studies and integrate those studies based on their strengths and weaknesses?

Response:
Consistent with the NRC recommendations, the IRIS program is evaluating different approaches for systematically reviewing the scientific literature and evaluating individual studies, synthesizing evidence within a particular discipline, and integrating evidence across different disciplines to draw scientific conclusions. If confirmed, I will commit to working with the IRIS program to improve its methods for study evaluation and integration.

Question 4: Will you commit to ensuring that all draft and final assessments released by the IRIS program are consistent with the recommendations of the National Research Council Formaldehyde committee which recommended changes for all IRIS assessments, not just formaldehyde?

Response:
The IRIS Program has been implementing the recommendations using a phased approach, consistent with the advice of the National Research Council (NRC), making the most extensive changes to assessments that are in the earlier stages of assessment development. Additionally, in July 2013, the EPA announced enhancements to the IRIS Program that will improve the science quality of assessments, improve the productivity of the Program, and increase transparency. These changes are consistent with the NRC recommendations. If confirmed, I look forward to working with the National Center for Environmental Assessment as they continue to implement these enhancements in the IRIS program.

Question 5: Do you agree that standard protocols should be developed to enable all studies to be independently judged based on their quality, strength, and relevance regardless of the author affiliation or funding source? If so, will you make development of these standard approaches a priority?

Response:
The EPA's work to protect public health and the environment needs to be based on strong science. If confirmed, I will commit to ensuring that we use clear criteria for judging quality of all studies and will integrate these studies based on their scientifically determined strengths and weaknesses and not on authorship or funding source.

Question 6: Will you ensure that as part of the improvements in the IRIS program, the agency will move away from outdated default assumptions and instead start with an evaluation of the data and use modern knowledge of mode of action—how chemicals cause toxicity instead of defaults?

Question 6a: That is, will you commit to using relevant data over defaults in IRIS assessments?

Question 6b: To extent defaults are used, will you ensure EPA has clear criteria for determining when such defaults are justified in lieu of relevantt literature and data?

Response:
EPA's work to protect public health and the environment needs to be based on strong science. When the IRIS program assesses a chemical, they systematically review the relevant literature and look at all of the available scientific data – including data about a chemical's mode of action. Where sufficient scientific data are available, the EPA uses that information in its risk assessments. However, for many chemicals, we do not have sufficient scientific data to inform certain elements of assessing a chemical hazards – such as mode of action. In the absence of sufficient scientific data, the EPA generally uses public health protective and scientifically-based default positions in risk assessments. If confirmed, I will work to assure that the application of defaults is based upon strong, transparent science.

Question 7: Can you commit to developing a clearly articulated prioritization process for high priority IRIS assessments that benefits from, and is responsive to, engagement from all stakeholders? Will you ensure coordination with other EPA program offices?

Response:
The EPA has previously committed to the Government Accountability Office that it will better describe for internal and external stakeholders and the public the nomination and selection process for chemicals for IRIS toxicity assessments, including the rationale for not selecting nominated chemicals for the full IRIS assessment. Additionally, the IRIS Program works very closely with the EPA's program and regional offices in setting priorities, and there are multiple opportunities for the public to provide input into all elements of the IRIS Program. If confirmed, I commit to the development and release of a prioritized IRIS Agenda covering the next several years' effort.

Question 8: EPA finalized an IRIS assessment for TCE in 2011 that established a safety value based primarily on controversial findings from a single laboratory. At the time, the agency acknowledged the significant limitations of these studies, and indicated that addressing these limitations was a key research need for understanding potential health effects associated with TCE. What has the agency done to address this key research need since reaching its conclusion in 2011?

Question 8a: It is my understanding that the industry has volunteered to conduct such research – with the oversight of the federal agencies. Has EPA agreed to provide such oversight? If not, why?

Question 8b: I understand that Dr. Ken Olden has been a proponent of such joint projects. Do you agree with Dr. Olden's assessment? What steps has EPA to pursue joint projects?

Response:
While more research might be informative, the EPA concluded in 2011 that there was a sufficient basis for developing a reference concentration for TCE. This value was based on two endpoints: fetal heart malformations and immunotoxicity resulting from TCE exposure. The reference concentration of 2 ug/m^3 reflects both of those effects.

There are no significant uncertainties that have arisen since 2011 that would change the EPA's conclusions as to a chronic reference concentration or that were not considered prior to the release of the final assessment.

The EPA has not agreed to provide oversight of industry conducted research on TCE. While partnerships between research organizations can be valuable, at this time we are not pursuing a joint

TCE research project with industry. Also, scientific decisions are based on the full body of evidence, and it is not usual that one additional study would drive the evidence base.

Question 9: I have heard concerns about the application of EPA's new safety value to sites contaminated with TCE, particularly as it is related to vapor intrusion. Apparently, this can substantially increase the complexity and cost of investigating and remediating these sites. Given the limitations associated with the safety value established in 2011, is it appropriate to apply the value in such situations?

Question 9a: Shouldn't there be some discretion provided to the site manager in applying such an uncertain value?

Question 9b: What information is provided to the site manager about the uncertainty surrounding the value?

Response:
IRIS assessments, like TCE, are developed for use by agency risk managers in a variety of situations – including, in this case, vapor intrusion. The IRIS assessment, however, does not dictate how risk managers use scientific information in decision-making. In the case of sites subject to CERCLA or RCRA, the National Contingency Plan, relevant RCRA corrective action rules, and programmatic guidance address how site managers should consider a range of factors in making appropriate risk management decisions. In general, decisions to take action are based on site-specific circumstances. There are some limitations in the available data for determining a concentration below which TCE exposures are unlikely to cause the developmental effect of fetal heart defects. That uncertainty was described in the IRIS assessment and highlighted in the August 2014 OSWER memo. This information is available to site managers.

SCIENCE ADVISORY BOARD

Question 1: Based on your time on the SAB, to what extent did ORD use the SAB in the past? Since you have been at the EPA, how and how frequently has the agency used the SAB?

Question 1a: Do you think the SAB is not used enough?

Question 1b: To what extent has the SAB met ORD's information and review needs?

Response:
The SAB is a tremendous resource for the agency and the nation, and it is being used to provide guidance on our most challenging scientific issues. During my time as a member of the SAB (from FY2008 to FY2013), the Board prepared over 75 advisory reports to the EPA Administrator on topics ranging from the adequacy of the EPA risk assessments to approaches to setting water quality criteria and conducting economic analyses to peer reviews of state of the science reports. The SAB also prepared in-depth studies of the science related to reactive nitrogen and integrated science for decision making. To my knowledge, the SAB has responded to all agency requests for advice and peer review. The SAB has responded to all of ORD's review requests. In addition, I have initiated discussions with the EPA Science and Technology Policy Council (composed of senior leaders from across the agency) to ensure that the highest priority, cross-agency science questions are identified and that the agency takes full advantage of its SAB as a source of advice on those questions.

Question 2: In the past ORD has asked the SAB for advice on its research programs, including human health risk, air, climate and energy, chemical safety, and water resources? Do you think there are areas within ORD that should have gone to the SAB for advice?

Response:
Many of ORD's most complex and controversial scientific assessments—including assessments of chemicals prepared for the Integrated Risk Information System (IRIS) and state-of-the-science assessments on the impacts of mountaintop mining, connectivity of waters, and hydraulic fracturing—were sent to the SAB for review. The SAB Chemical Assessment Advisory Committee (CAAC) has recently been put in place to provide advice to the IRIS program on their assessments. In addition, the SAB recently met jointly with the ORD Board of Scientific Counselors to provide high-level strategic advice on the EPA's research directions and research plans. I will continue to seek SAB advice on ORD research directions and SAB peer review of high profile scientific work products.

Question 3: Can you comment on the advantages and disadvantages of the process SAB uses to provide advice to the agency?

Response:
The SAB operates under the provisions of the Federal Advisory Committee Act (FACA) and implementing regulations, which require that all SAB meetings be announced and open to the public and that all materials provided to the SAB are available to the public. In addition, agency policies encourage public nomination of experts to serve on the SAB and provide multiple opportunities for public input to SAB committees and panels.

The primary advantage of the SAB process is that it gives the EPA access to independent advice from non-EPA experts who are nationally renowned in their disciplines, and it does so in a transparent, public manner with opportunities for public input. Although the SAB strives for consensus advice, in cases where there is disagreement among Board members on scientific questions the SAB reports provide the range of scientific opinion.

There are tremendous advantages to the SAB process. A potential disadvantage to the SAB process, which complies with FACA and ethics regulations, is the time required to form ad hoc panels and to announce and hold public meetings for the purpose of developing SAB advice. If confirmed, I look forward to working with the Board to facilitate more nimble and timely reviews, especially for emerging issues that demand a timely response.

Question 4: During your time on the SAB did it have an Executive Committee?

Question 4a: If it did, how often did it meet?

Question 4a (i): Did you ever meet with the Executive Committee?

Question 4a (ii): Did the Executive Committee ever meet with the EPA Administrator and engage in dialogue?

Question 4b: Some individuals have indicated that in the past when the SAB had an Executive Commitite SAB was more effective and independent. Would you recommend that the SAB have an Executive Committee?

Response:
During my service on the SAB, there was no Executive Committee. Prior to 2003, the SAB consisted of an Executive Committee (composed primarily of chairs of the Standing Committees) and a number of discipline-specific Standing Committees. The Executive Committee provided advice to the agency and reviewed and approved the work of the Standing Committees. In 2003, the SAB was restructured and the Executive Committee was replaced with a realigned Board that oversees the activities of a number of Standing Committees and ad hoc panels. A primary difference between the Executive Committee of old and the current Board is that the Board has a larger number of members and occasionally conducts strategic reviews on cross-cutting topics of interest to the EPA. A recent example of a Board-level activity is the 2012 report on Science Integration for Decision Making.

There is a long standing tradition for the EPA Administrators to meet with the SAB Executive Committee or Board and this tradition has been continued by Administrator McCarthy, who met with the SAB in December 2013 to discuss broad areas where the Board's advice could be helpful to the agency. I disagree with the notion that an Executive Committee would be more effective or independent than the current organization of the Board, which includes 45 expert scientists with a broad range of expertise, affiliation, and experience.

Question 5: In your proposed new role as Assistant Administrator for Research and Development, how do you plan to use the SAB?

Question 5a: Do you plan to review appointments to the SAB and its various committees?

Response:
The SAB Staff Office seeks public comments on the nominees and candidates willing to serve on the SAB and its committees. That public process allows anyone to provide input. This includes Congress, the public, constituent groups and the agency. I have and will continue to provide input as warranted on these important decisions.

Question 5b: Will you seek to ensure appropriate geographic diversity when potential SAB members are identified from the thousands of qualified scientists across the U.S.?

Response:
In making appointments to the SAB and its committees, the Administrator considers the needed balance of scientific and technical points of view, as well as diversity of perspectives (e.g., geographic, economic, social, cultural, educational and other considerations). Each SAB review has a unique set of needed expertise and perspectives and the SAB Staff Office works to understand those needs and to ensure that they are met when ad hoc panels are established.

Question 5c: The U.S. has many well-qualified scientists employed by academe, government and industry, yet most SAB members are from academic institutions on both coasts. What will you do to increase the participation of industry scientists and scientists from American heartland?

Response:
To some extent the SAB reflects the proportional makeup of the scientific community. However, the SAB's outreach efforts (i.e., recruiting efforts, webinars, and open door policy to meet with external organizations) have been successful in ensuring a greater diversity of members. For the current Chartered SAB members, approximately 32 percent have experience with industry / consulting and

13 percent have state /local or tribal experience. The current SAB hydraulic fracturing advisory panel has over 200 years of combined industry experience. With respect to geographic diversity, 11 of the 45 members currently serving on the Chartered SAB reside in the midwestern states (Iowa, Illinois, Indiana, Ohio, and Minnesota). The agency continues its efforts to increase participation in SAB reviews from all relevant scientific and technical communities.

HUMAN TESTING

In April 2014, the EPA Inspector General issued a report on EPA's human testing program, including several corrective actions. Notably, that EPA be fully transparent on the level of risk for pollutants exposed to human subjects. Earlier this week, news reports revealed EPA has not fully complied with the corrective actions.

Question 1: As EPA's Science Advisor, what steps have you taken to comply with these corrective actions?

Response:
All corrective actions have been implemented, per the completion memo dated 4/24/2015. In fact, we have gone beyond what the Office of Inspector General requested. While the recommendations were directed solely at enhancing the human studies that the EPA conducts at ORD's National Health and Environmental Effects Research Laboratory (NHEERL), many of the recommendations were applicable beyond NHEERL and are therefore being implemented agency-wide, where appropriate.

Question 1b: Do you think there a threshold below which there are no negative health effects for certain pollutants?

Response:
In order to answer this question, we must know both (a) the pollutant in question, and (b) whether the health effects mentioned refer to a large population or an individual. As an example for PM2.5, when the entire population of the U.S. is taken into account, numerous epidemiology studies have indicated there is no threshold below which adverse health effects do not occur in at least some people. There are some individuals in the population that are at such great risk (because of pre-existing disease, age, genetic makeup, etc) that they will experience an adverse health event at even very low concentrations of PM2.5. However, for most individuals, the risk from exposure to low concentrations of PM2.5 is very, very low. It is also important to distinguish between a single exposure to PM2.5 versus a lifetime of exposure. Just as smoking a single cigarette is not likely to cause an adverse event, compared with a lifetime of smoking, a single exposure to even high concentrations of PM2.5 is not likely to cause adverse health effects. Additionally, certain information about a chemical – such as its mode of action – can help inform whether or not a there is a threshold.

Question 1c: Do you believe human testing is justified? Is testing on children ever justified?

Response:
There's an important different between observational studies of populations and intentionally dosing humans with a pollutant. Scientists learn a lot from research in test tubes or animals, and from epidemiologic or observational studies on humans, which typically involve little interaction with subjects. However, these types of studies rely heavily on statistical inferences and assumptions, and

there are some things you can only learn by interacting directly with people, controlling variables and methods to allow firm conclusions to be drawn.

When EPA conducts studies with human subjects, we set—and meet—the highest safety and ethical standards.

The EPA is among 17 federal agencies that have adopted rules governing the protection of human subjects in research. The EPA's guidelines far exceed what is generally accepted and required by universities, industry, and other government agencies. For example, any of our research that involve human participants typically undergo more than eight separate levels of approval stages before any research is initiated. These include statistical and medical reviews of the study, reviews by an Institutional Review Board, Quality Assurance Officer review, and review by at least three other senior officials, whose approvals must be documented before a study can begin.

The EPA does not intentionally expose children to pollutants. However, the EPA has funded some important epidemiological studies that include children. These studies have provided critical information about children's exposures to pollutants, their susceptibilities, and the health effects that occur from the exposures. This research ultimately helps the EPA better understand how to protect children from the harmful effects of pollutants.

PETER PREUSS

Question1: Do you agree that Dr. Ken Olden is bringing much needed new leadership and transparency to the IRIS program?

Question 1a: Do you agree that the National Center for Environmental Assessment review (NCEA) previously operated behind closed doors where many stakeholders and peer reviewers did not understand NCEA's scientific approach?

Question 1a (i): Wasn't the previous NCEA Director Dr. Peter Preuss?

Question 1a (ii): Isn't it true you recently appointed him as one of your Deputy's in the Office of Science Advisor?

Question 1a (iii): Can you explain the reason for his appointment?

Response:
I agree that Dr. Ken Olden is an outstanding leader who has brought additional transparency, including multiple opportunities for stakeholder input, to the IRIS Program. Dr. Peter Preuss was a former director of the EPA's NCEA, but starting in 2010 he was ORD's Chief Innovation Officer. The EPA recently created a new position, the director of the Office of the Science Advisor, to more effectively support the agency's Science Advisor. Peter Preuss is the interim director, and we anticipate announcing the name of the new permanent director soon.

Senator Sessions Questions for Thomas Burke, Nominee, Assistant Administrator, EPA Office of Research and Development

During the April 2013 confirmation hearing for your boss (the EPA Administrator, Gina McCarthy), she promised the Environment and Public Works Committee under oath that she would "provide information . . . with respect to [her] responsibilities." However, instead of living up to her promise, the Administrator often directs others to respond to questions that are posed directly her.

For example, this past April, I and other members of the Committee wrote a letter to the Administrator regarding projected climate change impacts. Despite having committed to providing responses during this Committee's budget hearing for EPA, the Administrator directed Janet McCabe, the Acting Assistant Administrator for the Office of Air, to provide responses.

Question 1: If you are confirmed, will you personaly answer questions that are asked of you by members of this Committee?

Response:
If confirmed, I will commit to answering questions posed by SEPW to the best of my ability.

Question 2: The April 2015 letter asked straightforward questions related to whether projected climate impacts are actually occurring. Yet instead of reviewing and verifying the accuracy of climate projections which have served as the basis for the agency's regulatory policy and agenda, the Acting Assistant Administrator opined on future projections. For example, in response to a series of questions on global cyclone activity over the past century, the Acting Assistant Administrator wrote: "Anthropogenic climate change is . . . expected to contribute to a number of changes in extreme weather events... [T]ropical cyclone intensity is . . . expected to increase in the future, but the frequency of cyclones is likely to either decrease or remain unchanged." Do you agree that estimates of future climate impacts do not answer whether climate impacts projected and expected to occur in the past have proven accurate?

Response:
While this is not an area in which ORD plays a primary role, my understanding is that it is important to both consider how the climate is changing today, and how future changes will impact humans and the environment. Regarding the former, the EPA publishes a set of indicators describing trends related to the causes and effects of climate change. Focusing primarily on the U.S., this resource presents compelling evidence that many fundamental measures of observed climate are changing (see http://www.epa.gov/climatechange/science/indicators). The EPA's indicators consist of peer-reviewed, publicly-available data from a number of government agencies, academic institutions, and other organizations. The scientific community, including some work supported by the EPA, also considers how climate impacts may change in the future, building upon our understanding of what is happening today.

Question 3: I also asked in the letter whether the Administrator agreed that it has been nearly ten years since the last major hurricane struck the United States. The Acting Assistant Administrator's response did not answer this question. As the EPA's Science Advisor, please answer the following:

Question 3a: Was it appropriate for the Acting Assistant Administrator to refrain from confirming whether it has been nearly ten years since the last major hurricane struck the United States?

Question 3b: Does EPA have the institutional capability to review recent data on hurricane landfall and determine whether it has been nearly ten years since the last major hurricane struck the United States?

Response:
Again, while this is not an area where ORD plays a role, whether an individual storm event is determined to have met the criteria to be classified as a hurricane is a finding made by the National Oceanic and Atmospheric Administration (NOAA). It is my understanding that the EPA has the institutional ability to review data produced by NOAA, but does not produce original data regarding hurricanes. Staff at the EPA would defer to their expertise on this issue.

In general, it is difficult to draw conclusions about the number of major hurricane landfalls in a short period such as ten years. To illustrate this variability, there were seven major hurricane landfalls in the U.S. in the years 2004 and 2005, but none in the years that followed. Looking across multiple decades, the trend becomes clearer, which is why the Intergovernmental Panel on Climate Change came to the following conclusion in its 2013 Fifth Assessment Report: "it is virtually certain that the frequency and intensity of the strongest tropical cyclones in the North Atlantic has increased since the 1970s."

Hurricane landfall is difficult to predict, but, when it happens, the climate-change related impacts resulting from heavier precipitation and increased storm surge magnified by sea level rise are expected to increase the severity of damages. Additionally, a storm's status at the point of landfall may not necessarily equate to the scope of the damage: while Sandy did not make landfall as a major hurricane in 2012, it was one of the most damaging storms in U.S. history.

Question 4: Objective and unvested peer review plays a critical role in verifying the accuracy of science-based findings which serve as the basis for regulatory decisions, especially since these decisions raise the cost of energy throughout the United States. Do you agree it is critical that all information and data which underlie these findings be made publicly available and accessible so that a broad cross-section of credentialed peer reviewers and other capable investigators alike can independently verify an agency's scientific integrity?

Response:
The EPA is deeply committed to transparency. As such, the EPA posts publicly available information and data related to regulatory decisions on the public docket (www.regulations.gov). Additionally, we are working to expand the agency's existing efforts in place under the Open Government initiative https://www.whitehouse.gov/Open/ to make available the manuscripts and data supporting conclusions in the EPA-funded publications.

15-001-1195

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 30 2015

OFFICE OF
CONGRESSIONAL AND
INTERGOVERNMENTAL
RELATIONS

The Honorable James Inhofe
Chairman
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Barbara Boxer
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman and Ranking Member Boxer:

Thank you for your letter dated July 7, 2015, which included questions for the record following the hearing to consider the nomination of Jane Nishida to be Assistant Administrator in the Environmental Protection Agency's Office of International and Tribal Affairs. Ms. Nishida testified before the committee on June 11, 2015. Enclosed please find responses to those questions. If you have questions, you may contact me or your staff may call Christina J. Moody of my staff at (202) 564-0260, or email at moody.christina@epa.gov.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

Chairman Inhofe Questions for Jane Nishida, Nominee, Assistant Administrator, EPA Office of Tribal and International Affairs

Question 1: Please provide me with documentation of the amount of funding EPA as a whole spends annually in the form of grants, technology transfers, development of standards, or programs or regulation to improve the quality of the environment outside of the United States.

Response:
Spreadsheet No.1 includes contracts, grants and other miscellaneous obligations to improve the quality of the environment outside of the United States.

Question 2: How much money does EPA spend annually on international travel—not just your office, but all of EPA?

Question2a: Please provide a brief description of the purposes of this travel, broken down by EPA office.

Response:
See attached spreadsheet No. 2.

Question 3: How much money does EPA as a whole give out in grants to foreign governments and foreign entities?

Question3a: Please provide a short summary of these grants, broken down by EPA office.

Response:
Based on the understanding reached between the agency and the House Energy and Commerce Committee, the EPA defines international grants to include grants to foreign entities and foreign governments as well as grants to domestic entities to perform work abroad. Grants for US-Mexico Border and Canada-Great Lakes initiatives are excluded from that definition.

Using that definition, and as noted at the hearing, in FY 14, the EPA awarded $16.59 million ($16,587,870) in international grants or one-half of one percent of the agency's FY 14 grant budget. Additionally, a portion of the funding the EPA awards in international grants each fiscal year comes from other federal agencies such as the Department of State. In FY 14, the EPA received $1.03 million ($1,029,295) from other agencies for international grants. This accounted for 6.21% of the total international grant funding the EPA awarded in FY14.

Of the $16.59 million total awarded in international grants, the EPA awarded a total of $2,313,650 to foreign governments and foreign entities. The attached spreadsheet provides a description of each grant awarded to a foreign government or foreign entity sorted by the EPA office that manages the grant. An individual grant may include funds not only from the managing the EPA office but from other the EPA offices as well. (See spreadsheet No. 3)

Question 4: What role does your office play in coordinating the international activities of all the EPA offices? Should that coordination be increased?

Response:
OITA coordinates and oversees the EPA's relationship with countries and regions, as well as multilateral efforts, and develops agency-wide strategies for these relationships. OITA works with the State Department, the EPA National Program and Regional Offices in formulating U.S. international policies, implementing the EPA's international programs, and providing technical assistance to other countries. OITA leads the agency's efforts in regional and multilateral fora, such as the Commission on Environmental Cooperation and the Arctic Council; and coordinates intra-agency activities such as the agency's Greater China Program and the EPA's Export Strategy. The role of the National Program and Regional Offices are as primary contributors in implementing programs like the U.S-Mexico Border Program; or as technical experts in providing assistance for specific activities under the EPA's international programs.

The EPA Regions and National Program Offices communicate and coordinate with OITA when considering international requests and engaging in international activities to ensure these activities are consistent with the U.S. international priorities.

Senator Fischer Questions for Jane Nishida, Nominee, Assistant Administrator, EPA Office of Tribal and International Affairs

Question 1: My original request was that you review Mr. Prichard's case to ensure there was no bias or discrimination in this matter. Did you personally review Mr. Prichard's case?

Response:
The agency received your May 8 letter concerning Mr. Prichard's case on May 18. As the EPA National Program Manager for the agency's tribal programs, the Office of International and Tribal Affairs manages policy and implementation issues related to environmental programs in Indian Country, but does not manage contract dispute claims against the agency. Since your letter involved a contract dispute claim in Region 7, your letter was directed to Region 7 for response as the office most familiar with the details of Mr. Prichard's case. This is the agency's standard procedure for answering inquiries into matters such as this. As you know, Region 7 reviewed the letter and responded to your concerns in a letter dated June 1.

Question 2: What was your process or protocol for investigating Mr. Prichard's case?

Response:
Mr. Prichard initially filed his contract claim with the U.S. Environmental Protection Agency Contracting Officer that managed his contract. After reviewing Mr. Prichard's claim, the Contracting Officer issued a final decision denying the claim. On March 7, 2011, Mr. Prichard appealed the Contracting Officer's denial to the Civilian Board of Contract Appeals (CBCA), where the claim remains pending. This comports with the statutory and regulatory process for resolving contract disputes.

Question 3: How did the Office of International and Tribal Affairs define "equitably and respectfully" in Mr. Prichard's case?

Response:
The agency defined "equitably and respectfully" as treating Mr. Pritchard's company (ASW Associates, Inc.) in the same manner it would any contractor that submitted a claim for monies it felt were due.

Question 4: Mr. Prichard has informed my office that no EPA official or representative contacted him from May 8th to June 1st. How can the EPA claim that Mr. Prichard has been treated equitably and respectfully if no agency representative communicated with him to identify his specific concerns?

Response:
During the pendency of Mr. Prichard's case, since March 2011, the agency has participated in innumerable telephone conversations and email exchanges with Mr. Prichard concerning his contract claim. During the period May 8 to June 1, the agency was waiting for Mr. Prichard's

submission to the CBCA in response to the CBCA's original April 8, 2015, order and then the CBCA's subsequent

July 10, 2015, order in the case. On July 20, Mr. Prichard made his submission to the CBCA. As Mr. Prichard's case continues to progress, the agency fully anticipates that communication between Mr. Prichard and the agency will continue.

#1

EPA - FY14 International Obligations

A	B	C	I	J	K	L	W	X
Appropriation Year	Appropriation Symbol	Beginning Fiscal Funding Year	Organizational Unit	Obligation Title	Implementing Mechanism Purpose Statement	Implementing Agent	Obligation Amount	Start Date
2014	R	2014	Office of Air and Radiation	Cooperative Agreement	It is estimated that millions of people die prematurely each year from breathing dangerous levels of indoor smoke from cooking with solid fuels in open fires and unvented stoves. In 2010, EPA helped launch the Global Alliance for Clean Cookstoves to rapidly expand and scale up international collaboration to create a thriving market for clean cookstoves. The Alliance is led by the United Nations Foundation with support from several Federal Agencies, foreign governments and the private sector.	United Nations Foundation	$300.0	1-Feb-12
2014	R	2014	Office of Air and Radiation	Cooperative Agreement	It is estimated that millions of people die prematurely each year from breathing dangerous levels of indoor smoke from cooking with solid fuels in open fires and unvented stoves. During 2002 - 2012, the Partnership for Clean Indoor Air (PCIA) improved health, livelihood and quality of life by increasing the use of clean, efficient, affordable, reliable and safe home cooking/heating technologies and fuels in developing countries. In 2010, EPA helped the United Nations Foundation launch the Global Alliance for Clean Cookstoves to expand the efforts and results of PCIA.	Winrock	$200.0	1-Apr-12
2014	R	2014	Office of Air and Radiation	Cooperative Agreement	Through its Federal Guidance authority, EPA is responsible for providing guidance to all Federal health care facilities on radiation protection standards and practices. The World Health Organization is using funds from EPA/ORIA/RPD to develop an educational tool for medical professionals in an effort to reduce unnecessary exposure from pediatric imaging. The advent of improved digital imaging techniques such as computed tomography have been accompanied by a dramatic rise in medical doses to the public. These funds will be used for physician pilot testing and feedback and to develop supporting outreach materials.	World Health Organization	$190.0	1-Oct-14
2014	R	2013	Office of Air and Radiation	IAA	Improve GHG Emissions Measurement in China: Interagency Acquisition Agreement with Department of State	ICF	$200.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Improve GHG Emissions Measurement in China: Interagency Acquisition Agreement with Department of State	ICF	$10.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Improve GHG Emissions Measurement in China: Interagency Acquisition Agreement with Department of State	ICF	$200.0	1-Oct-13
2014	R	2014	Office of Air and Radiation	IAA	Improve GHG Emissions Measurement in China: Interagency Acquisition Agreement with Department of State	ICF	$43.9	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$68.9	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	RTI	$86.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	RTI	$250.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$75.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	EASTERN RESEARCH GROUP, INC	$27.3	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$74.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	STRATUS	$359.9	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$245.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICCT	$200.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	AAAS	$5.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State		$598.2	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ERG	$41.2	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ERG	$8.0	1-Oct-13

EPA - FY14 International Obligations

Appropriation Year	Appropriation Symbol	Beginning Fiscal Funding Year	Organizational Unit	Obligation Title	Implementing Mechanism Purpose Statement	Implementing Agent	Obligation Amount	Start Date
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	JPMORGA	$0.9	1-Oct-13
2014	R	2014	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	JPMORGA	$0.9	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$27.5	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ERG	$135.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	M. Tangle Reg Fee	$1.1	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$73.6	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	ICF	$2.3	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	RTI	$60.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Clean Air Coalition: Interagency Acquisition Agreement with Department of State	UNIV OF TENN SYSTEMS OFFICE	$25.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	RTI	$19.9	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	SPONSORE PROGS	$120.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	ERG	$20.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	JPMORGA CB	$0.5	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	DOE	$20.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	DOE	$380.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	RTI	$46.6	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Interagency Acquisition Agreement with US AID: Capacity Building Developing Nations	JPMORGA CB	$46.6	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Change: Interagency Acquisition Agreement with Department of State gmv	TERTA TECH	$5.4	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Change: Interagency Acquisition Agreement with Department of State	ARI	$250.7	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Change: Interagency Acquisition Agreement with Department of State	TERTA TECH	$6.0	1-Oct-13
2014	R	2013	Office of Air and Radiation	IAA	Climate Change: Interagency Acquisition Agreement with Department of State	ERG	$28.8	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	TERTA TECH	$161.0	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ERG	$174.6	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	TERTA TECH	$178.2	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	N/A	$194.1	1-Oct-13

Appropriation Year	Appropriation Symbol	Beginning Fiscal Funding Year	Organizational Unit	Obligation Title	Implementing Mechanism Purpose Statement	Implementing Agent	Obligation Amount	Start Date
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ERG	$121.7	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	RRR	$191.9	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ARI	$200.0	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ERG	$202.0	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ICF	$550.0	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ERG	$461.7	1-Oct-13
2014	B	2014	Office of Air and Radiation	EPM GMI	Climate Change: Global Methane Initiative	ERG	$780.2	1-Oct-13
2014	B	2014	Office of Air and Radiation	Multilateral Fund	Under the Montreal Protocol on Substances that Deplete the Ozone Layer, the U.S. and other developed countries contribute to the Multilateral Fund to support projects and activities that eliminate the production and use of ozone depleting substances (ODS) in developing countries.	United Nations Environment Program (UNEP)	$8,901.0	1-Oct-13
2014	B	2014	Office of Enforcement and Compliance Assurance	Cooperative Agreement	Provide Secretariat support for the International Network for Environmental Compliance and Enforcement (INECE) for the development and strengthening of effective enforcement programs in other countries to improve the rule of law and good governance internationally, in order to better control global pollution that can affect the U.S. and provide a level playing field for U.S. companies competing in world trade.	Institute for Governance and Sustainable Development (IGSD)	136.0	19-Nov-13
2014	B	2014	Office of International and Tribal Affairs	Mexico ECA Phase 3	Mexico and EPA working in partnership in understanding the feasibility and benefits to of developing an Emissions Control Area (ECA) that would be contiguous to the US-Canada ECA. Effort will contribute to GIS mapping of the 2013 maritime emissions inventory, the development and delivery of web-based and in-person presentations on the generation and implications of the 2011 and 2013 maritime emission inventories; and d) final background documentation on the emission inventories to facilitate their use in the air quality, fuel demand/cost, and health benefits and economic impacts modeling	BATTELLE MEMORIAL INSTITUTE	30.0	23-Jun-09
2014	B	2014	Office of International and Tribal Affairs	Reduction of Improper Handling of Electronic Waste	Supporting the Solving the E-Waste Problem (StEP) initiative to review current data around the world, apply the methodology, and produce information for E-Waste flows to and from developing countries similar to the StEP and Massachusetts Institute of Technology (MIT) Materials Systems Laboratory and the US National Center for Electronics Recycling (NCER) study in order to make comparisons that can be incorporated in the E-waste World Map.	UNITED NATIONS UNIVERSITY	40.0	1-Sep-10
2014	B	2014	Office of International and Tribal Affairs	Minamata Convention: ASGM	In support of UNEP's Global Mercury Partnership, this investment will develop the guidance materials, including materials to support national governments to facilitate formalization or regulation of the sector, manage trade and prevent diversion of mercury to Artisnal Small Gold Mines (ASGM) from other uses, develop a public health strategy, and involve stakeholders. The Global Mercury effort has identified the need to develop a guidance document for preparing National Action Plans (NAPs) that are compliant with the requirements of the Minamata Convention.	Natural Resources Defense Council (NRDC)	20.0	1-Oct-14
2014	B	2014	Office of International and Tribal Affairs	Annual Dues	In the U.S., EPA plays a role in ensuring trade related activities sustain environmental protection. Growing U.S. global trade underscores the importance of addressing potential adverse environmental consequences. To foster the protection and improvement of the environment in the region, NAAEC's creation represented a commitment by the U.S., Canada, and Mexico to integrate environmental protection considerations into their trade negotiations.	Commission on Environmental Cooperation (CEC)	2,550.0	4-Apr-14
2014	B	2014	Office of International and Tribal Affairs	Public Participation in Env Decision-making	Support the strengthening and implementation of public participation in environmental decision-making building on EPA's efforts to enhance environmental governance through increased stakeholder engagement to promote sound environmental action. Through regional training workshops, bring representatives from USG trading partners and other countries interested in promoting meaningful public participation in environmental decision making in conflict-ridden and underserved communities.	SRA	90.0	7-Aug-14
2014	B	2014	Office of International and Tribal Affairs	Pathways to Prosperity/CAFTA-DR	Pathways to Prosperity in the Americas helps achieve CAFTA-DR countries' broader environmental cooperative goals by working to protect and conserve the environment while promoting inclusive growth, prosperity, and social justice.	Science Applications Int'L Corp	350.0	1-Dec-10

Appropriation Year	Appropriation Symbol	Beginning Fiscal Funding Year	Organizational Unit	Obligation Title	Implementing Mechanism Purpose Statement	Implementing Agent	Obligation Amount	Start Date
2014	R	2014	Office of International and Tribal Affairs	U.S.-Brazil Joint Initiatives on Urban Sustainability (JIUS)	Demonstrate the economic, environmental, social, and public health benefits of greener urban investment strategies by leveraging and building on existing and planned event infrastructure investments for the 2014 World Cup and 2016 Olympics	SRA	178.8	7-Aug-14
2014	R	2014	Office of International and Tribal Affairs	Trade Related Environmental Cooperation for Environmental Governance in Chile	Support workshops in Chile in the areas of public participation and enforcement of environmental laws with the goal of sharing best practices for public participation in environmental decision-making. This effort will, in turn, support the establishment of a regional enforcement network connecting compliance and enforcement programs from environmental ministries throughout South America.	IGSD	122.0	1-Oct-10
2014	R	2014	Office of International and Tribal Affairs	Trade and Environment in FTA Countries	Provide technical assistance and training to selected countries with which the United States has negotiated Environmental Cooperation Mechanisms (ECMs) in order to strengthen legal and regulatory environmental frameworks and effective enforcement of environmental laws (including natural resources related laws). In addition, to conserve biodiversity and improve management of protected areas and ecologically important ecosystems, which will lead to sustainable development and management of natural resources.	RTI	27.0	1-Jun-12
2013	C	2013	Office of Research and Development	Cooperative Agreement (CA)	Cooperative agreement between EPA's National Center for Environmental Assessment and WHO's International Programme on Chemical Safety (IPCS) on Harmonization of Approaches to the Assessment of Risk from Exposure to Chemicals: End Point Specific Issues (V)	World Health Organization (WHO), International Programme on Chemical Safety (IPCS).	35.0	1-Oct-13
2014	C	2014	Office of Research and Development	Cooperative Agreement (CA)	Cooperative agreement between EPA's National Center for Environmental Assessment and WHO's International Programme on Chemical Safety (IPCS) on Harmonization of Approaches to the Assessment of Risk from Exposure to Chemicals: End Point Specific Issues (V)	World Health Organization (WHO), International Programme on Chemical Safety (IPCS).	110.0	1-Oct-14
2014	C	2013	Office of Research and Development	Grant	The overall goal of this project is to create a constantly upgrading, flexible and easily reproducible Living Laboratory to pilot sustainability tools and methods, starting on the local level in the Drini - Drina River Watershed. Each activity will be structured as a comprehensive capacity-building activity, combining both theoretical and hands-on approaches and actively engaging participants in the decision making process. The project will foster sustainability by improving local development strategies, building watershed-management capacity, and providing decision-making tools.	REC for Central and Eastern Europe	495.0	1-Mar-14
2013	C	2013	Office of Research and Development	Contract	To use the VitroCell system to expose mammalian cells and precision cut lung slices to various atmospheres (petroleum diesel, biodiesel, smog atmosphere) and to assess and compare predictive toxicity endpoints. The purpose of this work is to couple the contractor-supplied VitroCell system to the various emission/atmosphere-generating systems to result in a suitable exposure of the mammalian cells. A suitable exposure would provide changes in endpoints such as cytotoxicity, genotoxicity, and non-cancer effects, such as immunological endpoints.	Rebecca Greenan	15.0	15-Feb-14
2014	C	13	Office of Research and Development	Work Assignment	Open Area Emission Sampling and Testing involves a sampling program at CFAD (Canadian Forces Ammunition Depot) Dundurn, Saskatchewan, where is located the national demolition site. At this site, the OB/OD activities will be performed while a JMC/EPA team will be sampling the gaseous and particulate emissions. More specifically, this work will involve a quality assurance and test plan write-up, a sampling team, hardware deployment to Dundurn, sampling, analyses, and reporting, as detailed in the requirements part (the funds used for the work assignment were received under a reimbursable agreement RW92386501 with the US Army)	U.S. Department of Defense - Army	70.0	1-Apr-14
2014	C	13	Office of Research and Development	Cooperative Agreement (CA)	Differentiating Physical from Chemical Dispersion	Department of Fisheries & Oceans Canada	348.6	1-Apr-14
2014	B	2014	Office of Solid Waste and Emergency Response	Conflict Prevention and Resolution Services Contract, UNEP Meeting	At the workshop, EPA will begin the process of developing an international partnership among countries who have existing or planned LCA databases, and reach agreement on principles, develop a draft vision for the interoperable network, and get agreement on core technical elements.	United Nations Environment Programme	20.0	1-Aug-14
2013	B	2013	Office of Water	Cooperative Agreement	The Office of Water added funds to the cooperative agreement between EPA's National Center for Environmental Assessment and WHO's International Programme on Chemical Safety (IPCS) on Harmonization of Approaches to the Assessment of Risk from Exposure to Chemicals: End Point Specific Issues (V)	World Health Organization	120.0	1-Oct-13

Appropriation Year	Appropriation Symbol	Beginning Fiscal Funding Year	Organizational Unit	Obligation Title	Implementing Mechanism Purpose Statement	Implementing Agent	Obligation Amount	Start Date
2014	H	2014	Office of Water	Cooperative Agreement	The Office of Water added funds to the cooperative agreement between EPA's National Center for Environmental Assessment and WHO's International Programme on Chemical Safety (IPCS) on Harmonization of Approaches to the Assessment of Risk from Exposure to Chemicals: End Point Specific Issues (V)	World Health Organization	120.0	1-Oct-14

TOTALS		
EPM	Environmental Program and Ma	$15,932.4
Reimb	Reimburseble funding from othe	$4,440.8
S&T	Science and Technology	$1,073.6
STAG	State and Tribal Assistance Gran	$0.0
SF	Hazardous Substance Superfunc	$0.0

Check and Verification 72 $21,446.8

NPM / Region	Office	Description of Travel	EPA Cost
OA	IO	EPA Administrator's Greater Mission	$5,677.0
OA	OA	Administrator's Travel to Shanghai	$4,767.3
OA	IO	EPA Administrator's Greater China Mission	$4,438.0
OA	IO	EPA Administrator's Greater China Mission	$4,471.5
OA	IO	EPA Administrator's Greater China Mission	$3,248.1
OA	OP	OECD/ITF Working Group on Assessment of Policies for Long-term Transition to Sustainable Transport	$1,738.4
OA	IO	World Economic Forum 2014	$3,937.6
OA	IO	World Economic Forum 2014	$5,870.4
OA	OP	12th Session of Intergovernmental Panel on Climate Change (IPCC) Working Group 3	$3,221.8
OA	OP	12th Session of Intergovernmental Panel on Climate Change (IPCC) Working Group 3	$3,123.1
OA	IO	EPA Administrator's Regional Asia Mission	$4,360.2
OA	OA	EPA Administrator's Regional Asia Mission	$6,932.5
OA	OEAEE	EPA Administrator's Regional Asia Mission	$5,917.2
OA	IO	EPA Administrator's Regional Asia Mission	$3,487.5
OA	OEAEE	EPA Administrator's Regional Asia Mission	$6,612.7
OA	IO	President of Costa Rica's Inauguration	$25.5
OA	IO	President of Costa Rica Inauguration	$1,345.1
OA	OSBP	Conference Attendance	$538.5
OA	OA	U.S.-Japan Bilateral Commissin on Civil Nuclear Cooperation	$5,698.2
OA	IO	2014 Commission for Environmental Coorperation	$5,964.3
OA	IO	2014 Commission for Environmentnal Cooperation	$4,139.5
OA	IO	2014 Commission for the Environmental Cooperation	$4,919.3
OA	OEAEE	2014 Commission for Environmental Coorperation	$67.5
OA	OP	IZA Workshop: Labor Market Effects of Environmental Policies	$3,386.4
OA	OP	OECD Cost of Inaction and Resource Scarity: Consequences for Long-Term Economic Growth Workshop	$2,854.7
OA	OP	OECD - Cost of Inaction and Resource Scarcity: Consequences for Long-term Economic Growth (CIRCLE)	$3,010.0
OA	OEAEE	NAAEE Annual Conference	$2,029.7
OA	OEAEE	NAAEE Annual Conference	$1,436.5
OA	OEAEE	NAAEE Annual Conference	$1,699.1
OA	OEAEE	NAAEE Annual Conference	$1,161.3
OA	IO	Executive Board of the World Health Organization;meet with the Minister of Environment of Italy; and to will deliver remarks at the GE Oil and Gas Conference	$4,838.1
OA	IO	GE Oil and Gas Conference in Florence Italy	$3,430.7
OA	OA	U.S. Periodic Review Presentation to the UN Human Rights Council Meeting	$3,621.4
OA	CARD	Urban Land Institute Spring Meeting and Rose Center Fellowship Retreat	$193.7
OA	OA	IRIS trimethylbenzene Assessment Meeting	$2,129.5
OA	SAB	Science Advisory Board Meeting	$3,275.1
OA	SAB	SAB Board Meeting	$2,051.2
OA	SAB	Report on thre Envirnment (ROE)	$1,621.9
OA	SAB	EPA Report on the Environment (ROE)	$1,854.0
OA	SAB	Lake Erie Phosphorus Objective Meeting	$861.4
OA	OA	SAB Lake Erie Phosphorus Objective Meeting	$774.1
OA	SAB	SAB Lake Erie phosphorus Objective Meeting	$1,176.8
		OA TOTAL:	**$131,906.5**

NPM / Region	Office	Description of Travel	EPA Cost
OAR	OAA	19th Session of the Conference of Parties	$1,862.6
OAR	OAA	IGBP/GEIA Workshop on Global Emissions Inventories (for CMIP6)	$707.9
OAR	OAA	LRTAP Executive Body Meeting	$4,919.7
OAR	OAA	Arctic Council Task Force	$2,995.5
OAR	OAA	CCWG - Heavy-Duty Vehicle Implementation Plan	$4,303.8
OAR	OAA	First Meeting of the Technical Expert Group of the Minama	$2,555.3
OAR	OAA	Participate in Climate and Clean Air Coalition	$4,842.7
OAR	OAA	Arctic Council Task Force on Black Carbon and Methane	$57.5
OAR	OAA	World Health Organization expert meeting on air pollution health impact assessment	$3,104.8
OAR	OAA	TF HTAP Ecosystems and Regional Modeling Workshops	$3,915.2
OAR	OAA	Meeting of the Arctic Council Task Force on Black Carbon	$35.6
OAR	OAA	40th Meeting of the UNFCCC Subsidiary Bodies and Ad Hoc Group on the Durban Platform	$5,359.4
OAR	OAA	Climate and Clean Air Coalition Working Group Meeting	$3,501.3
OAR	OAA	Commission on Environmental Cooperation 2014 Council Session	$3,385.7
OAR	OAA	Technical Expert Group under the Minamata Convention	$3,765.0
OAR	OAA	Arctic Council Task Force on Black Carbon and Methane	$4,709.7
		OAR TOTAL:	**$50,021.6**

NPM / Region	Office	Description of Travel	EPA Cost
OARM	EAB	In conjunction with the Administrator's visit to Vietnam, employee was a speaker at a workshop entitled "Water Pollution Control in Vietnam: Reality and Policy," and provided a detailed presentation on the U.S. Clean Water Act and Safe Drinking Water Act	$582.4
OARM	ODACMO	Two invitational travel advisory committee members and one EPA employee attended the 21st session of the CEC Council and JPAC Meeting in Yellowstone, Canada.	$12,760.1
		OARM TOTAL:	**$13,342.5**

NPM / Region	Office	Description of Travel	EPA Cost
OCFO		No Invitational Travel in 2014	
		OCFO TOTAL:	**$0.0**

NPM / Region	Office	Description of Travel	EPA Cost
OCSPP	IO	REPRESENT EPA AT TTIP NEGOTIATION	$1,344.7
OCSPP	OPP	Represent the US Government faciliate POPRC and CRC decisions and other actions on chemicals that are consistent with US positions	$4,213.9
OCSPP	OPPT	5th International Workshop on Per- and Polyfluorinated Alkyl Substances & participate in discussion of the latest Scientific Research on Perfluorochemicals and Ecological and Human exposure.	$2,603.8
OCSPP	OPPT	OECD Expert Group on Honey Bee Toxicity Testing Meeting	$3,083.6
OCSPP	IO	WTO TBT Meeting	$3,776.2
OCSPP	OSCP	RA. FOREIGN TRAVEL. THIS TRAVEL AND HOTEL WILL BE PAID FOR B	$2,494.9
OCSPP	OPP	EPA is responsible for registering all pesticide products and establishing Maximum Residue Limits for pesticide use on crops	$103.3
OCSPP	IO	Negotiating the US-EU FTA on behalf of the EPA	$4,505.6
OCSPP	OPPT	OECD Task Force on Exposure Assessment (TFEA). The task force on Exposure Assessment such as asessment of Waste Water Treatment Efficiency	$4,080.1
OCSPP	OPPT	OECD Task Force on Exposure Assessment (TFEA). The task force on Exposure Assessment such as asessment of Waste Water Treatment Efficiency	$4,261.4
OCSPP	OPP	EPA delegation will exchange information on issues of mutual interest, identify opportunities for further collaboration with Canada and Mexico	$1,939.7
OCSPP	OPP	EPA delegation will exchange information on issues of mutual interest, identify opportunities for further collaboration with Canada and Mexico	$1,814.4
OCSPP	OPP	EPA delegation will exchange information on issues of mutual interest, identify opportunities for further collaboration with Canada and Mexico	$2,192.5
OCSPP	OPP	EPA delegation will exchange information on issues of mutual interest, identify opportunities for further collaboration with Canada and Mexico	$1,837.9
OCSPP	OPP	EPA delegation will exchange information on issues of mutual interest, identify opportunities for further collaboration with Canada and Mexico	$1,687.0
OCSPP	OSCP	Predicting Chemical Exposure & Hazards for High Throughput Risk Assessments and transforming toxicity testing from in vivo to iv vitro: a computational toxicology challenge"	$759.5
OCSPP	IO	The final Conference Session of the 2013 Unece Working Party	$4,508.6
OCSPP	OPP	The OECD Validation Management Group for Non-Anima	$2,944.7
OCSPP	OSCP	Validation of EDSP Tier 1 test guidelines and future AOP projects.	$3,320.3
OCSPP	OPP	RA. DR. SHAH WILL WORK WITH DELEGATES FROM OTHER OECD COUNTR	$2,385.7
OCSPP	OPPT	Working Party on Manufactured Nanomaterials (WPMN) meaningful testing; nanomaterial testing is unique and requires adjustments	$3,999.4
OCSPP	OPPT	Working Party on Manufactured Nanomaterials (WPMN) meaningful testing; nanomaterial testing is unique and requires adjustments	$5,270.5
OCSPP	OPPT	Working Party on Manufactured Nanomaterials (WPMN) meaningful testing; nanomaterial testing is unique and requires adjustments	$5,097.2
OCSPP	IO	Sustainability Standards Drafting Group og the International	$6,029.6
OCSPP	OPP	Present current researcher on unintended effects of transformation will aid in the assessment of current PIP	$119.9
OCSPP	OPPT	KICK-OFF MEETING OF THE ISEAL STEERING COMMITTEE ON GOOD	$174.8
OCSPP	OPPT	OECD Joint Meeting & SAICM Meeting & enhancing progress on risk reduction both within the US and across Members	$4,066.0
OCSPP	OSCP	OECD Joint Meeting & SAICM Meeting & enhancing progress on risk reduction both within the US and across Members	$3,371.3
OCSPP	OPPT	RA. TO ATTEND THE FINAL NEGOTIATING SESSION FOR THE SPS CHAP	$6,233.1
OCSPP	OPP	RA. MRS. VAN ALSTINE GAVE TWO DIETARY-RELATED PRESENTATIONS	$523.2

NPM / Region	Office	Description of Travel	EPA Cost
OCSPP	OPP	TTIP NEGOTIATIONS on representation on critical issues facing our Agency such as Pesticide and Chemical Policy	$5,011.0
OCSPP	OPP	PMRA WORKSHOP ON LONG-RANGE TRANSPORT OF PESTICIDES	$549.2
OCSPP	IO	WTO SPS COMMITTEE MEETING interagency delegation to the WTO SPS meeting	$4,603.7
OCSPP	OPP	Joint review chemicals with other governments and industry representatives and prepare briefings on the status of the global joint review projects.	$6,186.1
OCSPP	OPP	Joint review chemicals with other governments and industry representatives and prepare briefings on the status of the global joint review projects.	$4,345.0
OCSPP	OPPT	PARICIPATE in the OECD Steering Group Meeting inefforts on promoting eChemPortal.	$3,856.7
OCSPP	OPP	RA. ATTEND AND CONTRIBUTE TO THE LONG-RANGE TRANSPORT OF PES	$549.2
OCSPP	OPP	RA. EPA WORKS WITH STANDARD SETTING ORGANIZATIONS (ASTM, AOA	$1,850.7
OCSPP	OPP	Oversees all USG activities related to OECD test guidelines, assessment and management of chemicals, pesticides, biotechnology and nanotechnology.	$3,188.0
OCSPP	OPP	Oversees all USG activities related to OECD test guidelines, assessment and management of chemicals, pesticides, biotechnology and nanotechnology.	$3,615.9
OCSPP	OPP	ASTM meetings on antimicrobial pesticides, new pesticide/antimicrobial chemicals and alternative antimicrobial technologies.	$1,897.8
OCSPP	OPP	US position of the revised risk analysis and if needed provide information on the results of the pilot project of review by JMPR prior to the national authorities	$6,409.4
OCSPP	OPP	Position of the revised risk analysis and if needed provide information on the results of the pilot project of review by JMPR prior to the national authorities	$5,585.3
OCSPP	OPP	Annual Spring Meeting of the American Society of Testing and Materials (ASTM) International	$1,850.7
OCSPP	OPPT	UNEP SAICM Meeting to leverage fund for risk reduction activities, including target projects related to lead, mercury and/or PFCs, as well as chemical in articles.	$3,506.5
OCSPP	OPP	COORDINATING EFFORTS FOR OVERALL INTERNATIONAL HARMONIZATION	$3,289.2
OCSPP	IO	OECD EXPERT GROUP ON THE ELECTRONIC EXCHANGE, e-PRISM project and will be leading ITRMD team efforts for the international harmonization	$3,619.9
OCSPP	OPPT	WPMN meeting and the steering group meeting on testing and assessment, representing OPPT/CCD with respect to new chemical review of nanoscale materials	$3,901.5
OCSPP	OPPT	WORKING PARTY OF MANUFACTURED NANOMATERIALS (WPMN) meeting and the steering group meeting on testing and assessment, representing OPPT/CCD with respect to new chemical review of nanoscale materials	$4,060.4
OCSPP	OPPT	WPMN meeting and the steering group meeting on testing and assessment, representing OPPT/CCD with respect to new chemical review of nanoscale materials	$4,530.7
OCSPP	OPPT	WPMN meeting and the steering group meeting on testing and assessment, representing OPPT/CCD with respect to new chemical review of nanoscale materials	$4,293.4
OCSPP	OPPT	OECD HAZARD ASSESSMENT - reviews of AOP's under development Review and approve projects proposals fot the NST workgroup workplan.	$3,064.1
OCSPP	OPPT	OECD HAZARD ASSESSMENT - reviews of AOP's under development Review and approve projects proposals fot the NST workgroup workplan.	$2,868.7

NPM / Region	Office	Description of Travel	EPA Cost
OCSPP	OSCP	OECD HAZARD ASSESSMENT - reviews of AOP's under development Review and approve projects proposals fot the NST workgroup workplan.	$3,252.5
OCSPP	OPPT	ATTEND NORTH AMERICAN COMMISSION FOR ENVIRONMENTAL COOPERATION AND SOUND MANAGEMENT OF CHEMICALS MEETING	$1,959.8
OCSPP	OPPT	ATTEND NORTH AMERICAN COMMISSION FOR ENVIRONMENTAL COOPERATION AND SOUND MANAGEMENT OF CHEMICALS MEETING	$1,331.7
OCSPP	IO	Integrating Multi-Disciplinary Approaches for Decision Making about the Human Health and Environmental Impacts of Chemicals"	$6,081.6
OCSPP	IO	POSITION PROPERLY IN THE TTIP NEGOTIATIONS REGARDING CHEMICALS, PESTICIDES AND ENDOCRINE DISRUPTORS	$3,589.1
OCSPP	OPP	12th Meeting of the OECD Task Force on Biocides	$3,310.4
OCSPP	IO	TTIP NEGOTIATIONS Chemicals and Pesticides sectors,	$2,880.2
OCSPP	OPP	REPRESENT THE U.S. AT THE OPEN ENDED WORKING GROUP MEETING OF MONTREAL PROTOCOL	$5,336.2
OCSPP	OPP	DEVELOP STRATEGY AND PROTOCOLS FOR OPERATOR AND REENTRY	$137.0
OCSPP	OPPT	Joint Meeting of the APEC Regulators Forum and the OECD Clearing House on New Chemicals	$5,467.4
OCSPP	OPPT	Joint Meeting of the APEC Regulators Forum and the OECD Clearing House on New Chemicals	$5,503.7
OCSPP	OPPT	Joint Meeting of the APEC Regulators Forum and the OECD Cleanng House on New Chemicals	$4,723.4
OCSPP	OSCP	9th WORLD CONGRESS ON ALTERNATIVES AND ANIMAL USE IN THE LIFE SCIENCES	$2,393.1
OCSPP	OPPT	Sixth Meeting of the OECD Exposure Task Force and Seminar on Exposure Tools with AIST of Japan	$5,090 4
OCSPP	OPPT	Sixth Meeting of the OECD Exposure Task Force and Seminar on Exposure Tools with AIST of Japan	$5,137.4
OCSPP	OPPT	RA. DISCUSSIONS ON REGULATORY COOPERATION COUNCIL WORK ELEME	$1,666.4
OCSPP	OPPT	RA. TO ATTEND THE REGULATORY COOPERATION COUNCIL 2 (RCC) 2 I	$0.0
OCSPP	OPPT	Regulatory Cooperation Council (RCC)2	$1,676.6
OCSPP	OPPT	European Union Visitors Programme - cover an array of chemical and pollution prevention issues	$872.6
OCSPP	OPPT	CONDUCTING A PRESENTATION ON INTERNATIONAL- Joint Seminar on PFCs	$568.8
OCSPP	OPPT	CONDUCTING A PRESENTATION ON INTERNATIONAL- Joint Seminar on PFCs	$607.4
OCSPP	OPPT	3rd Meeting of the Global Alliance to Eliminate Lead in Paints - Legislative and Regulatory Workshop	$3,347.5
OCSPP	OPP	RA. ATTEND OECD GUIDELINE DEVELOPMENT MEETING ON THE EFFICAC	$4,058.2
		OCSPP TOTAL:	**$240,366.8**

NPM / Region	Office	Description of Travel	EPA Cost
OECA	OFA	Attend OECD working party on environmental performance	$2,996.7
OECA	OFA	Attend the Antarctic Treaty consultative meeting XXXVII	$4,836.5
OECA	OFA	Participation in facilitation of INECE/UNEP/Interpol Environmental meetings (port inspection workshop)	$3,155.6
OECA	OFA	EPA-Environment Canada Annual Bilateral meeting	$1,492.3
OECA	OFA	INECE-UNODC-WCO operational workshop on controlling environmentally regulated substances at seaports	$3,617.0
OECA	OFA	Deliver the principles of Environmental Impact Assessment Training	$198.3
OECA	OFA	Deliver the principles of Environmental Impact Assessment Training	$77.8
OECA	OFA	Scoping mission on Environmental impact assessment in the lower Mekong Region	$6,732.0
OECA	OFA	Meeting with the Commission for Environmental Cooperation (CEC) Enforcement	$1,805.7
OECA	OFA	Meeting with the Commission for Environmental Cooperation (CEC) Enforcement	$1,425.2
OECA	OCEFT	INTERPOL Environmental Compliance and Enforcement Committee meeting	$5,487.4
OECA	OCEFT	Administrator's Protection Detail for official visit	$7,255.3
OECA	OCEFT	Administrator's Protection Detail for official visit	$7,652.4
OECA	OCEFT	Administrator's Protection Detail for official visit	$4,337.1
OECA	OCEFT	Administrator's Protection Detail for official visit	$4,665.3
OECA	OCEFT	Administrator's Protection Detail for official visit	$4,482.2
OECA	OCEFT	Administrator's Protection Detail for official visit	$3,420.7
OECA	OCEFT	Administrator's Protection Detail for official visit	$3,238.8
OECA	OCEFT	Administrator's Protection Detail for official visit	$6,336.6
OECA	OCEFT	Administrator's Protection Detail for official visit	$4,493.6
OECA	OCEFT	Administrator's Protection Detail for official visit	$4,295.9
OECA	OCEFT	Administrator's Protection Detail for official visit	$5,590.3
OECA	OCEFT	Administrator's Protection Detail for official visit	$6,597.0
OECA	OCEFT	Administrator's Protection Detail for official visit	$6,093.3
OECA	OCEFT	Administrator's Protection Detail for official visit	$3,638.7
OECA	OCEFT	Administrator's Protection Detail for official visit	$1,807.3
OECA	OCEFT	Administrator's Protection Detail for official visit	$1,283.1
OECA	OCEFT	Administrator's Protection Detail for official visit	$4,323.1
OECA	OCEFT	Administrator's Protection Detail for official visit	$6,456.0
OECA	OCEFT	Administrator's Protection Detail for official visit	$2,649.8
OECA	OCEFT	Administrator's Protection Detail for official visit	$3,873.8
OECA	OCEFT	Forensics training for South American Enforcement Network	$3,309.1
OECA	OCEFT	Attend Law Enforcement Coordinating Committee meeting	$1,726.8
OECA	OCEFT	Meeting of Western New York/Southern Ontario Law Enforcemetn Coordinating Committee (LECC) for Environmental Crimes	$314.6
OECA	OCEFT	Meeting of Western New York/Southern Ontario Law Enforcemetn Coordinating Committee (LECC) for Environmental Crimes	$324.1
OECA	OC	Present to the German Society for Good Research Practice (DGGF) international meeting	$567.7
OECA	OEJ	Present to the UN on the Convention for the Elimination of Racial Discrimination	$4,127.7
		OECA TOTAL:	**$134,684.3**

NPM / Region	Office	Description of Travel	EPA Cost
OEI	OIAA	Participate in the 17th meeting of the OECD's PRTR Task Force; serve as the U.S. representative for which the U.S. has the lead.	$2,768.4
OEI	OIAA	Participate as an invited speaker and attendee;	$705.0
OEI	OIAA	Commission for Environmental Coperations (CEC's) PRTR Working Group to discuss ongoing efforts of the CEC's PRTR.	$497.3
		OEI TOTAL:	**$3,970.7**

NPM / Region	Office	Description of Travel	EPA Cost
OGC	OGC CCILO	Foreign Travel to represent USEPA	$8,098.0
OGC	OGC CCILO	Foreign Travel to represent USEPA	$2,414.1
OGC	OGC CCILO	Foreign Travel to represent USEPA	$3,770.1
OGC	OGC IO	Foreign Travel to represent USEPA	$881.5
OGC	OGC CCILO	Foreign Travel to represent USEPA	$1,132.3
OGC	OGC PTSLO	Foreign Travel to represent USEPA	$4,836.9
OGC	OGC PTSLO	Foreign Travel to represent USEPA	$4,309.6
OGC	OGC CCILO	Foreign Travel to represent USEPA	$14.8
OGC	OGC PSTLO	Foreign Travel to represent USEPA	$3,352.1
OGC	OGC CCILO	Foreign Travel to represent USEPA	$4,321.3
		OGC TOTAL:	**$33,130.5**

NPM / Region	Office	Description of Travel	EPA Cost
OIG		No Internatioanl Travel in 2014	
		OIG TOTAL:	**$0.0**

NPM / Region	Office	Description of Travel	EPA Cost
OITA	IO	SERVE AS A SPEAKER IN THE FORUM HUMAN RIGHTS	$524.2
OITA	IO	Staff Administrator Co Chair JCEC	$6,528.2
OITA	IO	EPA Regional Mission to Asia	$5,671.7
OITA	IO	STAFF Assistant to AA for Mission to Asia	$7,408.4
OITA	IO	CEC Trilateral negotiations	$3,748.8
OITA	ORBA	Programmatic consultations in Brussels	$4,512.6
OITA	ORBA	US delegation Joint Forum to Jordan	$2,576.4
OITA	ORBA	ADB Lower Mekong EIA Scoping Mission	$467.2
OITA	ORBA	The purpose of this scoping mission is to better understand	$390.3
OITA	ORBA	Scoping Mission on Environmental Impact Assessment	$502.5
OITA	ORBA	Follow up to CEC	$2,118.4
OITA	ORBA	Scoping mission to determine implementation priorities	$2,248.9
OITA	ORBA	Meet with Colombian officials and civil society representative	$2,232.0
OITA	ORBA	RA. TRAVELER WILL TRAVEL TO TAIPEI TO PARTICIPATE IN CONSULT	$2,707.6
OITA	ORBA	FOLLOW UP ACTIONS FOR CEC	$1,709.7
OITA	ORBA	RA. THE EPA ADMINISTRATOR GINA MCCARTHY'S MISSION TO GREATER	$3,740.6
OITA	ORBA	RA. TRAVELER WILL TRAVEL TO TAIPEI FOR PROGRAM MANAGEMENT UN	$6,769.3
OITA	ORBA	RA. IN TAIWAN, THE PURPOSE OF THIS MISSION IS TO ADVANCE CONVERSATIONS	$6,003.3
OITA	ORBA	RA. TRAVELLER IS MEETING WITH THE AMERICAN INSTITUTE IN TAIW	$1,160.0
OITA	ORBA	RA. WILL TRAVEL TO TAIPEI AND HANOI TO SUPPORT AD	$3,090.9
OITA	ORBA	RA. TRAVELER WILL PARTICIPATE IN THE CEC MEETINGS.	$2,746.4
OITA	ORBA	RA. WILL BE MEETING WITH EPAS COUNTERPARTRS IN SEMARNAT	$1,966.6
OITA	ORBA	RA. THE SEMI-ANNUAL BECC-NADB BOARD MEETING WILL TAKE PLACE	$1,493.8
OITA	ORBA	RA. THE TRAVELER WILL PARTICIPATE IN THE MAY 2014 JPAC REGUL	$2,458.1
OITA	ORBA	RA. IN TAIPEI, MR. KASMAN WILL FOLLOW UP WITH EPAT, MOFA AND	$2,925.7
OITA	ORBA	RA. TRAVELER IS THE STAFF LEAD SUPPORTING THE OD, THE AA AT CEC	$3,619.1
OITA	ORBA	RA. THIS TRIP IS SCHEDULED FOR THE COMMISSION FOR ENVIRONMEN	$4,095.9
OITA	ORBA	ATTEND CEC	$3,633.9
OITA	ORBA	RA. WILL SUPPORT EPA GENERAL COUNSEL AVI GARBOW AT US/CHINA ECON DIALOGUE	$4,596.1
OITA	ORBA	RA. THE TRAVELER IS THE PROJECT OFFICER FOR THE AFRICA WATER	$6,449.8
OITA	ORBA	RA. WILL TRAVEL TO LIMA, PERU TO PARTICIPATE ON US DELEGATION	$2,596.2
OITA	ORBA	Work in Taiwan TRAVEL FROM RALEIGH/DURHAM, NC TO BEIJING & GUANGZHOU	$2,803.2

NPM / Region	Office	Description of Travel	EPA Cost
OITA	OGAP	UNIDO E-waste Expert Working Group Meeting	$4,038.8
OITA	OGAP	Marc Lemmond is a member of EPAs Trade, Finance, Economics	$4,907.6
OITA	OGAP	Travel to UNGA special event on Minamata Convention	$265.2
OITA	OGAP	Negotiations for black carbon arrangement under the arctic	$53.2
OITA	OGAP	RA. TRAVELER WILL ATTEND THE UNITED NATIONS UNIVERSITY	$3,531.6
OITA	OGAP	RA. TRAVELER WILL BE ATTENDING THE OECD'S ENVIRONMENT POLICY	$3,752.1
OITA	OGAP	RA. TRAVELER WILL ADVISE THE SAO ON SEVERAL MATTERS	$4,222.0
OITA	OGAP	RA. TRAVELER IS THE CHAIR OF THE ACAP MERCURY PROJECT STEERI	$3,179.8
OITA	OGAP	RA. WILL TRAVEL TO BRUSSELS, BELGIUM TO US PARTICIPATION TTIP	$4,541.8
OITA	OGAP	OECD/EPOC MEETING	$4,058.6
OITA	OGAP	RA. TRAVELER WAS INVITED TO ATTEND THE UNITED NATIONS UNIVER	$220.3
OITA	OGAP	RA. MR. FERRANTE WILL TRAVEL TO PARIS, FRANCE TO CO-CHAIR THE OECD/EPOC	$4,837.8
OITA	OGAP	RA. SECOND MEETING OF THE ARCTIC COUNCIL TASK FORCE	$2,563.7
OITA	OGAP	ATTEND PPCOM	$3,007.7
OITA	OGAP	RA. ATTENDED A MEETING IN LONDON FOR THE IMO POLAR CODE NEGOTIATIONS	$3,981.6
OITA	OGAP	RA. THE TRAVELER WILLL BE MEETING WITH MEXICAN ENVIRONMENT AGENCY	$1,894.6
OITA	OGAP	RA. THE TRAVELER WILL BE MEETING WITH MEXICAN ENVIRONMENT AGENCY	$1,903.7
OITA	OGAP	RA. TRAVELER WILL REPRESENT THE UNITED STATES AT THIS MEETING	$3,873.5
OITA	OGAP	RA. THE TRAVELER WILL BE A MEMBER OF THE US DELEGATION	$4,726.7
OITA	OGAP	RA. FROM MARCH 21-29, MS. SMITH WILL TRAVEL TO NAIROBI, KENY, OECPR	$12,256.0
OITA	OGAP	RA. TRAVELER IS GOING TO PARTICIPATE IN THE STEP E-WASTE ACA	$2,180.0
OITA	OGAP	RA. MR. FERRANTE IS THE TRADE POLICY SUB- COMMITTEE REPRESEN	$5,080.7
OITA	OGAP	RA. THE TRAVELER WILL BE ATTENDING 2.5 DAYS OF THE SEVENTH WUF7	$2,459.3
OITA	OGAP	RA. TRAVEL WILL CONDUCT A 4 MONTH DETAIL AT UNIDO IN VIENNA,	$856.8
OITA	OGAP	RA. THE TRAVELER WILL ATTEND A 2-DAY MEETING OF THE OECD JOI	$3,906.8
OITA	OGAP	RA. TRAVELER WILL SERVE ON US DELEGATION TO 66TH SESSION OF	$4,589.6
OITA	OGAP	RA. TRAVELER WILL BE ATTENDING THE OECD'S ENVIRONMENT POLICY	$4,186.0
OITA	OGAP	RA. TRAVELER IS THE DESK OFFICER FOR OECD/EPOC ISSUES IN EPA	$5,094.4
OITA	OGAP	RA. THIS IS THE FIRST MEETING OF THE PROJECT SUPPORT INSTRUM	$3,586.2
OITA	OGAP	RA. REP EPA AT PARTNERSHIP FOR CLEAN FUEL	$4,008.0
OITA	OGAP	RA. TRAVEL IS TO UNITED NATIONS UNIVERSITY STEP GENERAL ASSE	$4,140.2
OITA	OGAP	RA. TRAVELER WILL PARTICIPATE IN A MEETING OF THE ARCTIC COU	$3,132.3

NPM / Region	Office	Description of Travel	EPA Cost
OITA	OGAP	RA. THE TRAVELER WILL BE ATTENDING AND FORMALLY PARTICIPATIN	$4,408.7
OITA	OGAP	RA. , MR. FERRANTE WILL TRAVEL TO PARIS, FRANCE TO CO-CHAIR MTG	$3,985.6
OITA	OGAP	RA. TRAVELER WILL REPRESENT EPA AT THE ANNUAL MEETING OF THE	$1,834.0
OITA	OGAP	RA. TRAVELER WILL BE ATTENDING THE UNITED NATIONS ENVIRONMEN	$14,949.1
OITA	OGAP	RA. TRAVELER IS ON DETAIL TO THE UNITED NATIONS INDUSTRIAL D	$1,396.2
OITA	OGAP	RA. MR. LEMMOND WILL REPRESENT USEPA AT OPENING SESSION OF WTO	$4,994.8
OITA	OGAP	RA. US DELEGATION FOR TTIP	$4,785.8
OITA	OGAP	RA. MR. METCALF WILL TRAVEL TO BRUSSELS, BELGIUM TO PARTICIP	$4,551.5
OITA	OGAP	RA. TRAVELER IS ATTENDING THE ADVISORY GROUP MEETING AND WORKSHOP	$4,994.6
OITA	OGAP	RA. TRAVELER WILL PRESENT ON U.S. PROGRESS ON BLACK CARBON P	$3,600.9
OITA	OGAP	RA. MS. HODAYAH FINMAN IS THE ALTERNATE CHAIR OF THE GLOBAL	$4,196.2
OITA	AIEO	RA. EMPLOYEE WILL ATTEND: CONFERENCE ON TRIBAL ENVIRONMENTAL	$42.7
OITA	AIEO	RA. TRAVELER WILL BE ATTENDING THE CEC COUNCIL SESSION	$4,219.4
		OITA TOTAL:	$276,491.0

NPM / Region	Office	Description of Travel	EPA Cost
ORD	IOAA	Presented at the World Water Tech Summit -	$1,053.0
ORD	IOAA	Participated as a resource person at 3rd Asian Sanitation Dialogue	$4,337.5
ORD	IOAA	Korean Society of Toxicology's Toxicological Assessment for Human Health and Welfare	$292.9
ORD	IOAA	Attended a review of the Medical Research Council Center for Environmental and Health Renewal Subcommittee meeting	$1,880.3
ORD	IOAA	Present at European Cooperation in Science and Technology (COST) Action meeting on European Network on New Sensing Technologies for Air-Pollution Control and Environmental Sustainability	$1,714.5
ORD	IOAA	Attended chemical management plan science committee meeting at the Management of Perfluoroalkylated Compounds at Federal Contamination Sites Workshop	$930.9
ORD	IOAA	Gave presentation at Frontiers in Air Quality Science An international symposium in celebration of 21 years of the Environmental Research Group @ King's College London	$411.0
ORD	IOAA	Attended a Group on Earth Observations (GEO-X) Plenary and Ministerial Summary Meeting	$4,900.9
ORD	IOAA	Attended meeting of the Institutions and Development Implementation Board (I&DB) at the Group on Earth observations (GEO) Work Plan Symposium	$5,473.6
ORD	IOAA	Attended meeting at the Center for International Forestry Research	$403.2
ORD	IOAA	Participated as part of the identified set of technical parters for the Rockefeller Foundation	$4,430.1
ORD	IOAA	Attended GEO Institutions & Development Implementation Board Meeting	$2,729.6
ORD	IOAA	Attended the 9th consortium meeting of the eTOX Project	$659.2
ORD	IOAA	Attended the international Agency for Research on Cancer (IARC) Monographs on the Evaluation of Carcinogenic Risks to Humans	$133.3
ORD	IOAA	Return home after serving as an embassy science fellow	$1,850.3
ORD	IOAA	Met with L'Insitut National de L'Environment Industriel et des Risques (INERIS) officials to discuss EPA's mission at the Organisation for Economic Co-operation and Development (OECD) Extended Advisory Group on molecular Screening and Toxicogenomics	$3,598.1
ORD	IOAA	Presented a paper on indoor air quality at 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014) - Hong Kong	$3,620.3
ORD	IOAA	Presented at 9th World Congress on Alternatives and Animal Use in the Life Sciences	$517.8
ORD	IOAA	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$4,583.6
ORD	IOAA	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$3,909.8
ORD	IOAA	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$4,320.5
ORD	IOAA	Invited to represent US perspective at 2014 Sustainable Development Acadamy	$6,245.6
ORD	IOAA	Invited to represent US perspective at 2014 Sustainable Development Acadamy	$4,027.0
ORD	IOAA	Participated in project sub-committee meetings at Organisation for Economic Co-operation and Development (OECD) general meeting	$4,785.3
ORD	NCCT	Two-day scoping meeting on Adverse Outcome Pathways	$453.7
ORD	NCCT	Gave keynote speech at the Human Health Effects Workshop	$190.2
ORD	NCCT	Invited to speak at the Final Neatherland Toxicogenomics Centre (NTC Consortium Meeting and project/scientific advisory meeting	$705.6

NPM / Region	Office	Description of Travel	EPA Cost
ORD	NCCT	Invited to participate as a panel member for Ph.D. thesis defense and give a seminar	$1,776.8
ORD	NCCT	Invited as an expert to attend the International Stakeholder Network (ISTNET) Neurotoxicology Workshop	$605.2
ORD	NCCT	Invited to participate in the 1st annual SEURAT Meeting as a member of the SEP Advisory Board	$555.3
ORD	NCCT	Invited as an expert to attend the Advancing Adverse Outcome Pathways for Integrated Toxicology and Regulatory Applications	$658.4
ORD	NCCT	Participated in Seurat read-across meeting	$563.7
ORD	NCCT	Invited to speak at 1st NOTOX Satellite Meeting to the European Society of Toxicology in Vitro International Conference	$422.8
ORD	NCCT	Partiipated in 8th Workshop on the Terminoloy in Developmental Toxicology	$798.0
ORD	NCCT	Presented at the 16the International Workshop on Quantitative Structure-Activity Relationships in Environmental and Health Sciences (QSAR2014)	$257.8
ORD	NCCT	Attended Organisation for Economic Co-operation and Development (OECD) Extended Advisory Group on Molecular Screening and Toxicogenomics	$6,307.8
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$696.4
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$644.3
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$688.0
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$694.2
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$864.2
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$742.7
ORD	NCCT	Attended 9th World Congress on Alternatives and Animal Use in Life Sciences	$841.6
ORD	NCCT	Presented at 50th EUROTOX Congress and visited the National Institute for Public Health and the Environment	$1,040.0
ORD	NCEA	Bilateral Working Group Workshop on "Research for More Sustainable Urban Land Management – Enhancing Transatlantic Transfer of Knowledge	$856.3
ORD	NCEA	Bilateral Working Group Workshop on "Research for More Sustainable Urban Land Management – Enhancing Transatlantic Transfer of Knowledge	$509.9
ORD	NCEA	Invited to the Central & Eastern European Health and the Environment Conference (CEECHE)	$426.6
ORD	NCEA	Invited to the Central & Eastern European Health and the Environment Conference (CEECHE)	$448.6
ORD	NCEA	Participated in European Food Safety Authority (EFSA) Scientific Colloquium Meeting	$607.6
ORD	NCEA	Presented at the NanoValid Bi-Annual Meeting - 11/6/2013	$546.6
ORD	NCEA	Spoke at the 8th Dubai International Food Safety Conference - 11/16/2013	$295.0
ORD	NCEA	Spoke at the Commonwealth Scientific and Industrial Research Organization (CSIRO) Cutting Edge Science Symposium - 4/7/2014	$245.3
ORD	NCEA	Participated in the International Agency for Research (WHO/IARC) Monograph Workshop - 6/3/2015	$207.5
ORD	NCEA	Attended Society of Environmental Toxicology and Chemistry (SETAC) Advancing Adverse Outcome Pathways (AOP) for Integrated Toxicology and Regulatory Applications workshop - 3/2/2014	$99.6
ORD	NCEA	Taught a course in risk assessment at the Society of Environmental Toxicology and Chemistry (SETAC) 24th Annual Meeting - 5/11/2014	$4,188.8
ORD	NCEA	Keynote speaker and panelist at International Council of Chemical Association's (ICCA) conference - 6/17/2014	$3,743.8
ORD	NCEA	Invited to the Central & Eastern European Health and the Environment Conference (CEECHE) - 5/23/2016	$335.5
ORD	NCEA	Attended a Risk Assessment Training and Experience (RATE) Program - 4/29/2014	$47.0
ORD	NCEA	Participated in the International Agency for Research (WHO/IARC) Monograph Workshop - 6/3/2014	$155.8

NPM / Region	Office	Description of Travel	EPA Cost
ORD	NCEA	Attended International Programme on Chemical Safety (IPCS) Workshop on evaluating and communicating uncertainty and variability in azard characterization for chemicals - 11/19/2013	$141.5
ORD	NCEA	Attended Interactive Games to Value and Manage Ecosystem Services workshop - 12/9/2013	$685.3
ORD	NCEA	Attended 8th workshop on the Terminology in Developmental Toxicology - 5/14/2014	$1,987.0
ORD	NCEA	Keynote speaker and panelist at International Council of Chemical Association's (ICCA) conference - 6/17/2015	$1,867.3
ORD	NCEA	Invited to International Agency for Cancer Research Monograph meeting - 9/30/2014	$379.9
ORD	NCEA	Gave keynote speech at World Health Organization (WHO) Chemical Risk Assessment Network	$1,254.1
ORD	NCER	Presented at the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014) 7/7/2014	$4,939.2
ORD	NERL	Attended Bioavailability Research Group of Europe (BARGE) 7th International workshop on Contaminant Bioavailability in the Terrestrial Environment - 11/3/2013	$15.0
ORD	NERL	Management of Perfluoroalkylated Compounds at Federal Contaminated Sites Workshop - 2/19/2014	$2,455.4
ORD	NERL	Presented at the International Council of Chemical Association's (ICCA) Workshop - 6/17/2014	$367.1
ORD	NERL	Presented at the 2014 International Conference	$4,263.2
ORD	NERL	Invitational collaborative work to perform research related	$942.8
ORD	NERL	Attended 7th Meeting of the US-US Collaboration Agreement on Exposure	$3,753.1
ORD	NERL	Attended 7th Meeting of the US-US Collaboration Agreement on Exposure	$3,953.3
ORD	NERL	Presented at Indo-US Science and Technology Forum (IUSSTF) - 12/16/2013	$622.6
ORD	NERL	Served on Academic Committee for the 4th International Workshop on Regional Air Quality Management - 1/14/2014	$845.0
ORD	NERL	Presented at 9th International Conference on Air Quality - 3/24/2014	$2,339.7
ORD	NERL	Presented at 9th International Conference on Air Quality - 3/24/2015	$2,828.0
ORD	NERL	Gave a talk at European Geophysical Union 2014 Conference - 4/27/2014	$4,629.8
ORD	NERL	Gave a talk at European Geophysical Union 2014 Conference - 4/27/2015	$4,742.3
ORD	NERL	Presented at the 16th annual conference on Harmonization within Atmospheric Dispersion Modeling for Regulatory Purposes - 9/8/2014	$3,727.7
ORD	NERL	Presented at the 16th annual conference on Harmonization within Atmospheric Dispersion Modeling for Regulatory Purposes - 9/8/2015	$2,924.4
ORD	NERL	Presented at the World Weather Open Science Conference	$2,340.8
ORD	NERL	Invited to assist the Virology Laboratory of the Companhia de Tecnologia de Saneamento Ambiental (CETESB) - 9/25/2014	$449.4
ORD	NERL	Attended workshop in support of ongoing collaborative efforts on the project titled "Commonwealth Environmental Water Office Long-term Intervention Monitoring Project – Junction of the Warrego and Darling Rivers site".	$599.2
ORD	NERL	Invited to be a member of the International Team of Science	$382.7
ORD	NERL	Co-chaired a session at SETAC's 24th annual meeting - 5/11/2014	$6,071.3
ORD	NERL	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$4,173.2
ORD	NERL	Gave talks at the Department of Protozoology, Campinas State University - 12/9/2013	$951.1
ORD	NERL	Attended a briefing on the Clusters Program at the 3rd Asian Sanitation Dialogue and Singapore International Water Week (SIWW) - 6/1/2014	$5,561.9
ORD	NERL	Provide assistance under the Embassy Science Fellowship program as requested by the US Embassy in Port Louis, Mauritius. Work on projects to map and measure oceanic processes and biodiversity resources.	$8,536.1
ORD	NERL	Provide assistance under the Embassy Science Fellowship program as requested by the US Embassy in Port Louis, Mauritius. Work on projects to map and measure oceanic processes and biodiversity resources.	$2,116.0

NPM / Region	Office	Description of Travel	EPA Cost
ORD	NERL	Provide assistance under the Embassy Science Fellowship program as requested by the US Embassy in Port Louis, Mauritius. Work on projects to map and measure oceanic processes and biodiversity resources.	$2,216.0
ORD	NERL	Provide assistance under the Embassy Science Fellowship program to the US Embassy in Majuro, Marshall Islands. Work on the use of remote sensing and geospatial analysis tools to suport coastal zone mapping and change detection analysis to document coastal zone changes over the past decade.	$6,011.5
ORD	NERL	Provide assistance under the Embassy Science Fellowship program to the US Embassy in Majuro, Marshall Islands. Work on the use of remote sensing and geospatial analysis tools to suport coastal zone mapping and change detection analysis to document coastal zone changes over the past decade.	$3,891.8
ORD	NERL	Provide assistance under the Embassy Science Fellowship program to the US Embassy in Majuro, Marshall Islands. Work on the use of remote sensing and geospatial analysis tools to suport coastal zone mapping and change detection analysis to document coastal zone changes over the past decade.	$4,348.2
ORD	NERL	Presented at the American Society of Agriculture	$2,774.3
ORD	NERL	Attended the 2nd annual International Omics Syntheseis Conference and Satellite Workshop - 9/15/2014	$730.2
ORD	NERL	Attended Aquatic Toxicity Workshop (ATW) - 9/28/2014	$1,884.7
ORD	NERL	Sixteenth Chinese-American Kavli Frontiers of Science sympos	$1,226.1
ORD	NERL	Attended a basin-side assessment of the impacts of climate change	$1,581.2
ORD	NERL	Attended meeting with the Society of Environmetal Toxicology and Chemistry	$2,283.4
ORD	NERL	Participated in Foreign Service Institute Course	$5,893.0
ORD	NERL	Participated and gave a presentation at the 3rd International Advisor's Conference of the Global Survivability Studies Program (GSS) - 2/26/2014	$403.8
ORD	NERL	Presented on Organic Chemistry and Toxicity of Contaminants in the Ground	$1,619.4
ORD	NERL	Participated in a meeting of the United Nations Environmental Programme	$2,692.0
ORD	NERL	Participated in Foreign Service Institute Course	$5,201.1
ORD	NERL	Attended panel meeting of the United Nations Environment Programme Committee on Environmental Effects	$2,956.5
ORD	NERL	Presented at 20th international symposium	$4,209.3
ORD	NERL	Presented at the International Council of Chemical Association's (ICCA) Workshop	$5,148.0
ORD	NERL	Attended the 15th World Lake Conference	$4,498.1
ORD	NHEERL	Served as embasy science fellow	$3,782.9
ORD	NHEERL	Invited keynote address at the University of Saskatchewan as	$184.2
ORD	NHEERL	AttendedBiannual meeting of Great Lakes Water Quality Association (GLWQA), Great Lakes Executive Committee (GLEC) - 12/2/2013	$2,252.3
ORD	NHEERL	AttendedBiannual meeting of Great Lakes Water Quality Association (GLWQA), Great Lakes Executive Committee (GLEC) - 12/2/2014	$2,450.2
ORD	NHEERL	Participated in Advancing Adverse Outcome Pathways for Integrated Toxicology and Regulatory Applications workshop - 3/2/2014	$511.2
ORD	NHEERL	Participated in Advancing Adverse Outcome Pathways for Integrated Toxicology and Regulatory Applications workshop - 3/2/2015	$985.9
ORD	NHEERL	Presented at National Sciences and Engineering Research Center meeting - 5/1/2014	$733.8
ORD	NHEERL	Attended International Association for Great Lakes Research (IAGLR) Annual Conference - 5/25/2014	$1,716.7
ORD	NHEERL	Attended Organisation for Economic Co-operation and Development (OECD) Extended Advisory Group on Molecular Screening and Toxicogenomics - 6/11/2014	$2,797.6
ORD	NHEERL	Gave keynote address at 2nd Annual International Environmental Omics Synthesis Conference - 9/15/2014	$615.3
ORD	NHEERL	Spoke at Bioaccumulation Workshop - 9/24/2014	$694.5
ORD	NHEERL	Presented at the American Fisheries Society Annual Meeting - 8/18/2014	$3,108.6
ORD	NHEERL	Presented at the American Fisheries Society Annual Meeting - 8/18/2015	$3,243.1
ORD	NHEERL	Presented at Risk Management and Risk Control of Chemicals Workshop - 9/22/2014	$706.2
ORD	NHEERL	Invited Lead Author at the First Author Meeting for Delivera	$3,361.0

NPM / Region	Office	Description of Travel	EPA Cost
ORD	NHEERL	Attend 2nd General Assembly of European Union funded project	$318.5
ORD	NHEERL	Gave lecture at DEVOTES workshop - 3/26/2014	$287.9
ORD	NHEERL	Presented at Coastal Zone Canada (CZC) Meeting - 6/15/2014	$3,082.3
ORD	NHEERL	Served as a member of the EDA-EMERGE Advisory Board at the EDA-EMERGE: 5th Project Meeting (PM5). In this role, he will provide constructive comments on how the program is functioning and give an outsider's perspective on the program's development and progress.	$214.3
ORD	NHEERL	Present at conference 'Earth System Governance'	$2,262.4
ORD	NHEERL	Attended 10th International Conference on Environmental, Cultural, Economic, and Social Sustainability - 1/22/2014	$3,140.3
ORD	NHEERL	Served as panel member at European Centre for Ecotoxicology and Toxicology of Chemicals - 2/10/2014	$818.0
ORD	NHEERL	Served as panel member at European Centre for Ecotoxicology and Toxicology of Chemicals - 2/10/2015	$796.2
ORD	NHEERL	Presented at Analytica Conference - 4/1/2014	$1,055.0
ORD	NHEERL	Lecutured at Associazione Italiana Pneumologi Ospedalieri (AIPO) - 5/9/2014	$869.9
ORD	NHEERL	Present a Keynote Lecture, "Health Risk of Exposure to Atmospheric Pollutant Particles" at the 2014 International Aerosol Conference. There is also a second presentation on the topic of Respiratory Dose-Exposure Analysis.	$3,607.4
ORD	NHEERL	Attended Annual Conference of Chinese Environmental Medicine and Health Branch, Chinese Society for Environmental Sciences, and the International Symposium on Environmental Pollution and Health (ISEPH) - 9/24/2014	$675.0
ORD	NHEERL	Attended Annual Conference of Chinese Environmental Medicine and Health Branch, Chinese Society for Environmental Sciences, and the International Symposium on Environmental Pollution and Health (ISEPH) - 9/24/2015	$653.7
ORD	NHEERL	Attended Annual Conference of Chinese Environmental Medicine and Health Branch, Chinese Society for Environmental Sciences, and the International Symposium on Environmental Pollution and Health (ISEPH) - 9/24/2016	$20.9
ORD	NHEERL	Attended Annual Conference of Chinese Environmental Medicine and Health Branch, Chinese Society for Environmental Sciences, and the International Symposium on Environmental Pollution and Health (ISEPH) - 9/24/2017	$878.6
ORD	NHEERL	Participated in OECD chemical identification harmonization methods meetings - 12/3/2013	$3,502.5
ORD	NHEERL	Participated in OECD chemical identification harmonization methods meetings - 12/3/2014	$3,537.8
ORD	NHEERL	Presented at Developmental Neurotoxicity Assessment of Mixtures in Children (DENAMIC) workshop - 3/10/2014	$684.2
ORD	NHEERL	Keynote speaker at 6th International Workshop on Per- and Polyfluorinated Alkyl Substances - 6/15/2014	$625.4
ORD	NHEERL	Served as panel review member for Canadian Institutes of Health Research - 9/16/2014	$233.6
ORD	NHEERL	Presented at 45th Annual Symposium of the Society of Toxicology of Canada - 12/4/2013	$2,169.8
ORD	NHEERL	Attended the Adverse Outcome Pathway Knowledge Base (AOP-KB) Effectopedia Kick-off meeting - 1/29/2014	$647.7
ORD	NHEERL	Participated in Advancing Adverse Outcome Pathways for Integrated Toxicology and Regulatory Applications workshop - 3/2/2016	$759.8
ORD	NHEERL	Attended 12th International Society for Stem Cell Research - 6/18/2014	$3,778.3
ORD	NHEERL	Attended Organisation for Economic Co-operation and Development (OECD) Extended Advisory Group on Molecular Screening and Toxicogenomics - 6/11/2015	$3,257.0
ORD	NHEERL	Presented work at the 9th International Meeting on Substrate-Integrated Microelectrode Arrays. Specifically speaking on efforts to increase the throughput of microelectrode arrays for neurotoxicity screening.	$354.2
ORD	NHEERL	Presented at 9th World Congress on Alternatives and Animal Use in Life Sciences - 8/24/2014	$745.2
ORD	NHEERL	Gave a seminar at Toxigenomics: the emergence of research and regulatory Paradigm workshop - 9/15/2014	$387.6
ORD	NHSRC	Attended UK Government Decontamination Service (GDS) Biology of Anthrax Workshop - 3/11/2014	$668.4

NPM / Region	Office	Description of Travel	EPA Cost
ORD	NHSRC	Presented work at Arctic, Marine, and Oilspill Program (AMOP) International Conference - 6/3/2014	$3,193.2
ORD	NHSRC	Attended working group meeting on Decommissioning and Environmental Management with US-Japan Bilateral Commission on Civil Nuclear Cooperation - 6/11/2014	$3,534.5
ORD	NHSRC	Attended UK Government Decontamination Service (GDS) Biology of Anthrax Workshop - 3/11/2014	$2,278.1
ORD	NHSRC	Attended and speaking at a workshop on using AOP treatment of water at the University of Nancy . The secondary purpose of this trip is presenting and attending the Hydreous Forum also being held in Nancy, France.	$3,308.6
ORD	NRMRL	Attended meeting on Sharing New Methods and Procedures in Chemical Oxidation Research - 12/2/2013	$854.8
ORD	NRMRL	Attended workshop on Contaminated and Hazardous Waste Site Management - 6/2/2014	$765.7
ORD	NRMRL	Presented as an invited speaker at the Session 10 K titled, "Iron Redox Transformations and Their Impact on Trace Elements in Natural and Engineered Systems", at the Goldschmidt Conference 2013.	$156.0
ORD	NRMRL	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$3,441.4
ORD	NRMRL	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$3,592.9
ORD	NRMRL	Attended European Symosium on Computer Aided Process Engineering - 6/15/2014	$1,688.5
ORD	NRMRL	Served as an Embassy Fellow in Hong Kong where they will: (1) Serve as a technical consultant on local air quality issues to the U.S. Consulate, (2) Support the development of longer-term research collaborations and agreements between the EPA and Hong Kong research institutions, and (3) promote scientific information exchange by presenting on areas of technical expertise to a variety of audiences.	$5,647.3
ORD	NRMRL	Advisor for Plancha Protocol Workshop - 10/29/2013	$264.4
ORD	NRMRL	Co-chair of 23rd International Karasek/Toxic Organic Pollutant Meeting 11/6/2013	$3,203.5
ORD	NRMRL	Served as expert trainer at Intensive Training Workshop - 12/10/2013	$318.5
ORD	NRMRL	Served as expert trainer at Intensive Training Workshop - 12/10/2014	$31.3
ORD	NRMRL	Served as technical expert at 4th International Workshop on Regional Air Quality Management in Rapidly Developing Economic Regions - 1/14/2014	$850.9
ORD	NRMRL	Participated in US TAG to ISO/TC 285 on Clean Cookstoves and Clean Cooking Solutions - 2/10/2014	$3,276.7
ORD	NRMRL	Participated in embasy science fellows program - 5/19/2014	$5,410.6
ORD	NRMRL	Attended Gordon Research Conference - 6/29/2015	$2,442.9
ORD	NRMRL	Attended Gordon Research Conference - 6/29/2014	$2,374.3
ORD	NRMRL	Attended 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014) - 7/7/2014	$4,374.4
ORD	NRMRL	Attended 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014) - 7/7/2015	$4,790.6
ORD	NRMRL	Presented at POPs/Dioxin Pollution Assessment and Remediation workshop - 12/1/2013	$4,889.0
ORD	NRMRL	Participated in Project meeting with project collaaborators at the BIO Wave Tank	$3,115.5
ORD	NRMRL	Participated in Bilateral-Working-Group Workshop on "Research for More Sustainable Urban Land Management – Enhancing Transatlantic Transfer of Knowledge" - 3/6/2014	$257.0
ORD	NRMRL	Invited to the Central & Eastern European Health and the Environment Conference (CEECHE) - 5/23/2014	$772.6
ORD	NRMRL	Invited to the Central & Eastern European Health and the Environment Conference (CEECHE) - 5/23/2014	$666.8

NPM / Region	Office	Description of Travel	EPA Cost
ORD	NRMRL	Invited to the Central & Eastern European Health and the Environment Conference (CEECHE) - 5/23/2014	$24.8
ORD	NRMRL	Attended Contaminated & Hazardous Waste Site Management Workshop - 6/2/2014	$268.5
ORD	NRMRL	Attended Project Investigator Meeting at the Bedford Institute - 6/17/2014	$2,436.7
ORD	NRMRL	Attended principal investor meetings with scientists and engineers	$59.5
ORD	NRMRL	Attended principal investor meetings with scientists and engineers	$3,022.2
ORD	NRMRL	Made keynote addres to Inter-American and Colombian Conference	$693.8
ORD	NRMRL	Attended NANOCON International Conference - 11/21/2013	$776.4
ORD	NRMRL	Served as embassy science fellow - 3/9/2014	$4,000.1
ORD	NRMRL	Gave keynote talk to the VI International Congress on Biofuels Science and Technology - 3/19/2014	$878.8
ORD	NRMRL	Participate in the second National Forum on nanotechnology	$905.5
ORD	NRMRL	Presented at American Chemical Society Workshop - 1/15/2014	$192.7
ORD	NRMRL	Attended 3rd Asian Sanitation Dialogue and Singapore International Water Week (SIWW) - 6/1/2014	$6,956.6
ORD	NRMRL	Attended TRUST Project Advisory Meeting - 6/10/2014	$1,172.1
ORD	NRMRL	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$4,123.3
ORD	OPARM	Meeting with China's Ministry of Science and Technology (MOST) to discuss scientific collaboration related to ongoing research on water resources, chemicals and waste contamination, and air quality; advancing EPA's priorities and continuing to identify topics of mutual interest to advance and strengthen research tools, science and solutions to current and projected environmental challenges.	$4,806.2
ORD	OSIM	Attended the Adverse Outcome Pathway Knowledge Base (AOP-KB) Effectopedia Kick-off meeting - 1/29/2014	$663.0
ORD	OSP	Attended the 6th international Workshop on Geneotoxicity Testing (IWGT) and the 11th International Conference On Environmental Mutagens (ICEM) - 10/31/2013	$2,142.5
ORD	OSP	Attended an International Science and Technology Center Meeting - 5/7/2014	$7,026.4
		ORD TOTAL:	**$412,265.5**

NPM / Region	Office	Description of Travel	EPA Cost
OSWER	ORCR	Presentation on NHSM Rule and Waste to Energy	$2,420.8
OSWER	ORCR	OECD Working party on Resource Productivity and Waste	$3,619.6
OSWER	ORCR	Basel Convention Expert Working Group on Environmentally Sound Management	$2,954.7
OSWER	ORCR	International Maritime Organization - Marine Environmetn Protection Committee (MEPC) - Hong Kong Convention	$3,816.7
OSWER	ORCR	Basel Convention Expert Working Group on Environmentally Sound Management	$5,312.7
OSWER	ORCR	US - Canada Waste Bilateral Meeting	$1,409.6
OSWER	ORCR	US - Canada Waste Bilateral Meeting	$104.4
OSWER	ORCR	Basel Convention Expert Working Group on Environmentally Sound Management	$5,476.0
OSWER	ORCR	Basel Convention Expert Working Group on Environmentally Sound Management	$5,058.8
OSWER	OSRTI	Sustainable Remediation 2014 Conference	$2,268.7
OSWER	OSRTI	To perform on-site laboratory audit of AXYS Analytical Services, Ltd. AXYS provides dioxin/CB Congener analysis services for the Superfund Program. All Contract Laboratory Program laboratories are subject to a comprehensive on-site audit on a biannual basis.	$2,251.5
OSWER	OSRTI	To participate as an active workgroup member in the International Workshop on Remediation of Uranium Legacy Sites	$3,136.0
		OSWER TOTAL:	**$37,829.3**

NPM / Region	Office	Description of Travel	EPA Cost
OW	OWM	Keynote speaker at 15th Annual Ontario Onsite Wastewater Assoc. Conference and Trade Show	$782.0
OW	OWM	9th Annual Ballast Water Management Tech	$1,282.0
OW	OWM	U.S.-Mexico Border Water Infrastructure Program Partners Mtg. As the U.S. SES-level principal, I will Co-Chair the meeting with Mario Lopez, my CONAGUA counterpart.	$1,768.0
OW	OWM	Trading in U.S. Waters- Informative seminar	$155.0
OW	OWM	U.S-Mexico Border Water Infrastructure Program Partners Mtg. Attending as the national program lead and key member of the USEPA team that will be meeting with the U.S.-Mexico Border partners.	$455.0
OW	OWM	Trading in U.S. Waters--Informative semina	$772.0
OW	OWM	International Shipowners environmental pollution seminar: discussion of international and U.S. vessel pollution regulation	$379.0
OW	OWM	Attending the North American Regulatory Conference. International Shipowners environmental pollution serninar: discussion of international and U.S. vessel pollution regulation.	$963.0
OW	OWM	Speaker at 6.2 ReUse Water European Commission's Annual Green Week conference.	$490.0
OW	OWM	Attend US-Mexico Border Water Infrastructure Program.	$1,696.0
OW	OWM	Participate in meetings with the South African Government.	$58.0
OW	OAA	6th Meeting of the Working Party for Biodiversity, Water and Ecosystems of the OECD.	$1,475.0
OW	OAA	UNEP-GPA Second Global Conference on Land-Ocean Connections. Participate in UNEP Global Programme of Action's two main initiatives on wastewater and nutrient management in reducing land-based pollution.	$719.0
OW	OAA	GEF CReW Project Steering Committee Mtg. Participate in Project Steering Committee Meeting for the Global Environment Facility, Caribbean Regional Fund for Wastewater Management (CReW); to review 3rd year project work plan and budget, conduct mid-term evaluations, discuss replication strategy, and contribute to future project concept development to advance the project. Develop additional opportunities for collaborations to engage EPA and the US Water Partnership in the GEF project and regional response to the Cartagena Convention on the prevention of land-based sources of pollution.	$2,958.0
OW	OAA	World Water Week. Participate in panel sessions and discussions on corporate metrics at the invitation of the CEO Water Mandate/Pacific Institute; and on energy/water in cooperation with other USG agencies, the State Department and World Bank.	$3,604.0

NPM / Region	Office	Description of Travel	EPA Cost
OW	OAA	Represent EPA OW at the Singapore International Water Week, key international water event for governmental, intergovernmental organizations, and businesses to share innovative water solutions. Connect with Singapore Public Utility Board (PUB) on joint MOU, UN Water, and support the USG booth in the US Pavilion related to EPA's water program.	$4,877.6
OW	OAA	Global Wastewater Initiative Steering Committee Mtg. Participate in the 6th Meeting of the Working Party for Biodiversity, Water and Ecosystems of the OECD as representative of the U.S. EPA Office of Water. Share and inform U.S. experience and involve in international policy discussions on urban water management, ecosystems, nutrient cycles, and water governance and resource management as relevant to U.S. national programs.	$1,212.0
OW	OWOW	Presentation at international workshop on biodiversity offsets. Hosted by OECD.	$3,203.0
OW	OST	World Congress of Environmental and Resource Economists. Learn about the latest research and innovations in the measurement of environmental benefits and water quality benefits.	$4,485.0
		OW TOTAL:	**$31,333.6**

NPM / Region	Office	Description of Travel	EPA Cost
R1	OEP	International St Croix Watershed Board	$288.0
R1	OEP	Lake Champlain Basin Program Steering Committee Meeting	$452.2
R1	OEP	Gulf of Maine Council on the Marine Environment, Working Group meeting & Coastal Zone 2014	$2,762.2
R1	OEP	Gulf of Maine Council on the Marine Environment, Working Group meeting & Coastal Zone 2014	$1,588.8
		REGION 1 TOTAL:	**$5,091.1**
R2			
		REGION 2 TOTAL:	**$0.0**
R3		Conduct training course on the Principles of Environmental Impact Assessment for Reviewers.	$348.3
R3		Pannel monderator and invited speaker at the 2014 Global Estuaries Forum. All travel, perdiem and hotel expenses were paid by the conference organizers, Seine Estuary Program (Estuaire de la Seine - Terntoire de l'Eau). There is no TA for this travel, therefore the costs are what was estimated on the ITP and the ethics form, which was approved.	$3,484.0
		REGION 3 TOTAL:	**$3,832.3**
R4	APTMD	10/15/2013 - ASHRAE IAQ 2013 Conference	$524.3
R4	Gulf of Mexico	05/26/2014 - Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem, Strategic Action Programme Tech Mtg	$2,415.3
R4	Gulf of Mexico	05/26/2014 - Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem, Strategic Action Programme Tech Mtg	$2,448.1
		REGION 4 TOTAL:	**$5,387.7**

NPM / Region	Office	Description of Travel	EPA Cost
R5	GLNPO	Implementation of (GLWQA)/State of Strait conference	$1,337.7
R5	GLNPO	Implementation of (GLWQA).	$965.2
R5	GLNPO	Implementation of (GLWQA).	$950.2
R5	GLNPO	Implementation of (GLWQA)/Executive committee Meeting	$1,237.3
R5	GLNPO	Implementation of (GLWQA)/Executive committee Meeting	$1,157.4
R5	ORA	Implementation of (GLWQA)/ Executive Committee Meeting	$1,388.3
R5	WD	Implementation of (GLWQA).	$1,232.1
R5	GLNPO	Implementation of (GLWQA).	$1,083.9
R5		Great Lakes Executive Meeting	$2,160.4
R5	ORA	Implementation of (GLWQA)/Board Meeting 181.	$1,756.8
R5	ORA	Implementation of (GLWQA)/RA IJC Meeting	$1,131.7
R5	WD	Great Lakes Water Quality Annex - 4 Municipal and Rural Task Force meeting	$1,125.4
R5	GLNPO	Implementation of (GLWQA).	$906.1
R5	GLNPO	Implementation of (GLWQA)Env Canada AOC Workshop	$1,021.9
R5	WD	Implementation of (GLWQA).	$968.6
R5	WD	Implementation of (GLWQA).	$931.7
R5	GLNPO	Implementation of (GLWQA)/Nt'l Celebration of the Removal of the DET	$746.9
R5	WD	Implementation of (GLWQA).	$547.3
R5	GLNPO	Implementation of (GLWQA)/Nutrient Annex Subcommittee Meeting	$748.1
R5	GLNPO	Implementation of (GLWQA)/57th Annual international Assoc	$1,454.0
R5	GLNPO	Implementation of (GLWQA)/57th Annual international Assoc	$938.9

NPM / Region	Office	Description of Travel	EPA Cost
R5	GLNPO	Implementation of (GLWQA).	$1,138.8
R5	GLNPO	Implementation of (GLWQA)Biannual Meeting	$1,296.9
R5	GLNPO	Implementation of (GLWQA) Annex 2 Nearshore Framework Tas	$1,092.3
R5	ORA	Public forum, "Transboundary Natural Resource management; meeting Challenges through Cooperation and Participation across Borders	$383.2
R5	ORA	Implementation of (GLWQA).	$1,151.2
R5	SFD	Implementation of (GLWQA).	$382.9
R5	GLNPO	Implementation of (GLWQA).	$747.5
R5	WD	Implementation of (GLWQA).	$973.8
R5	WD	Implementation of (GLWQA).	$865.4
R5	ORA	Implementation of (GLWQA).	$594.8
R5	SFD	Solid Waste Management Conference	$489.0
		REGION 5 TOTAL:	**$32,903.2**

NPM / Region	Office	Description of Travel	EPA Cost
R6	REGION	Binational dialogue and presentations of US Mexico Border 2020 Program giving feedback to the recently appointed Mayor of Ojinaga, Chihuahua who serves as Mexico's Task Force Leader, and to the City of Presidio, TX as well	$215.5
R6	REGION	Invited by Mexico City Metropolitan Environmental Secretariat, in conjunction with Mexico's National Autonomous University to speak about US – Mexico Air Quality Management Plans, Rules, Regulations and how to get public consensus when making policy; as well to moderate round table discussions.	$328.3
R6	REGION	Meeting with the mayor of Ojinaga, Chihuahua to discuss a border project on air quality and air monitoring, ongoing priorities for the city to include a work plan as part of the milestones under the Border 2020 Program, and met with the mayor's staff to do a 1 day training as part of the project that was funded.	$175.4
R6	REGION	Meeting with the mayor of Ojinaga, Chihuahua to discuss a border project on air quality and air monitoring, ongoing priorities for the city to include a work plan as part of the milestones under the Border 2020 Program, and met with the mayor's staff to do a 1 day training as part of the project that was funded	$88.5
R6	REGION	US Mexico Border infrastructure meeting with Mexico	$1,660.7
R6	REGION	UN Rio Bravo meeting in Mexico City with UNEP Liaison and OAS Lead along with Texas State University staff and EPA, US Lead contacts. Meeting is to determinate the new Mexican government's position to either continue with the approved UN GEF project approved in December 2010 or close out the project for sending the UN 4.4M dollars back to the GEF Secretariat. (2 Travelers)	$777.5
		REGION 6 TOTAL:	**$3,245.9**

NPM / Region	Office	Description of Travel	EPA Cost
R7			
		REGION 7 TOTAL:	**$0.0**
R8	MT Office	Elk Valley Water Quality Plan – Technical Advisory Committee Meeting #3	$2,208.1
R8	MT Office	Elk Valley Water Quality Plan – Technical Advisory Committee Meeting #3	$2,074.7
R8	MT Office	Elk Valley Water Quality Plan – Technical Advisory Committee (TAC)	$1,966.2
R8	MT Office	Elk Valley Water Quality Plan – Technical Advisory Committee (TAC) Meeting	$2,049.4
R8	MT Office	Elk Valley Water Quality Plan – Technical Advisory Committee (TAC) Meeting #5	$756.1
R8	MT Office	Elk River / Lake Koocanusa Technical Advisory Committee Meeting	$1,865.7
R8	MT Office	Elk River Valley / Lake Koocanusa Technical Advisory #6 Meeting	$2,374.5
R8	MT Office	Elk River / Lake Koocanusa Lake Technical Advisory Committee Meeting #7	$2,676.2
R8	MT Office	Elk River / Lake Koocanusa Technical Advisory Committee Meeting #7	$2,508.2
		REGION 8 TOTAL:	**$16,479.1**

NPM / Region	Office	Description of Travel	EPA Cost
R9	AIR	CA Ag Leadership Development Program Brazil Trip - BRAZIL - MANAUS (15-days)	$258.2
R9	SDBO	Project Funding Strategy Meeting - EPA & SEMARNAT - MEXICO - TIJUANA (1-day)	$0.0
R9	CED-6	Unified Environmental Standards (UES) Monitoring & Assessment - MARSHALL ISLANDS - KWAJALEIN ATOLL (11-days)	$4,598.3
R9	AIR	1st International Workshop on Emissions Inventory and Air Quality Policy in Mexico and the US - MEXICO - MEXICO CITY, D.F. (2-days)	$235.2
R9	WTR-4	Meetings with various agencies and NGOs in Mexicali and Tijuana to advance Border 2020 program - MEXICO - MEXICALI (3-days)	$191.6
R9	WTR	US-Mexico Border Infrastructure Project Oversight - MEXICO - SAN LUIS RIO COLORADO (1-day)	$598.8
R9	SFD	Detail Assignment to Commission for Environmental Cooperation (CEC - CANADA - MONTREAL (178-days)	$594.3
R9	CED	Arizona/Sonora Regional Workgroup Meeting in Sonora - MEXICO - HERMOSILLO (2-days)	$1,370.6
R9	AIR	International Seminar of Air Quality and Climate Change - MEXICO - MEXICO CITY, D.F. (2-days)	$336.6
R9	LAND	U.S.-Mexico Border Program - AZ/SON Region - MEXICO - HERMOSILLO (2-days)	$699.9
R9	SDBO	AZ-Sonora Regional Workgroup Meeting - MEXICO - HERMOSILLO (2-days)	$708.4
R9	SDBO	Detail Assignment to the State Department's Consulate in Tijuana - MEXICO - TIJUANA (117-days)	$1,300.0
R9	WTR	U.S.-Mexico Border Water Infrastructure Partner's Meeting - MEXICO - MEXICO CITY, D.F. (4-days)	$1,695.0
R9	SFD	US-Mexico Border Program - AZ/SN Region - MEXICO - NOGALES (2-days)	$1,141.9
R9	LAND	AZ/Sonora Regional Workgroup Task Force Meetings - MEXICO - NOGALES (1-day)	$669.7
R9	CED	AZ/SO Regional Task Force Meetings - MEXICO - NOGALES (1-day)	$409.0
R9	WTR	Border 2020 Task Force Meeting - MEXICO - NOGALES (1-day)	$365.7
R9	SFD	FUNDING OF CONTAMINATED SITES REMEDIATION and TECHNICAL AND ECONOMIC RECOVERY OF CONTAMINATED LAND - MEXICO - MEXICO CITY, D.F. (6-days)	$139.7
R9	LAND	USAKA Environmental Standards Meetings - MARSHALL ISLANDS - MAJURO (4-days)	$4,487.8
R9	WTR	US-Mexico Border project oversight meetings - MEXICO - TECATE, TIJUANA, SAN LUIS RIO COLORADO, SONOYTA, MEXICALI, NOGALES (4-days)	$1,040.0
R9	WTR	Green Infrastructure on the Border - MEXICO - CIUDAD JUAREZ (3-days)	$1,880.5
R9	LAND	Project Officer Meeting -BECC Grant Managers in Cd. Juarez - MEXICO - CIUDAD JUAREZ (2-days)	$829.5
		REGION 9 TOTAL:	**$23,650.4**

NPM / Region	Office	Description of Travel	EPA Cost
R10	Office of Water and Watersheds	Participate in a tour with the US State Dept of Canadian hydropower projects as part of the beginning of US State Dept negotiations with Canada on the Columbia River Treaty.	$527.7
R10	Office of Air Waste & Toxics	Meeting to attend the International Airshed Stragety Meeting was cancelled; fees remain.	$35.6
R10	Oregon Operations Office / Office of Air Waste & Toxics	Attend the International Airshed Stragety Meeting	$1,349.6
R10	Oregon Operations Office / Office of Environmental CLeanup	Attend the International Dialogue on Underwater Munitions	$3,926.2
R10	Office of Ecosystems, Tribal and Public Affairs	Work on the Statement of Cooperation	$675.8
R10	Office of Ecosystems, Tribal and Public Affairs	Work on the Statement of Cooperation	$428.9
R10	Office of Ecosystems, Tribal and Public Affairs	Meeting with Canadian Officials regarding projects that may have transboundary impacts	$1,273.8
R10	Office of the Regional Administrator	Pacific Northwest Directors Meeting	$698.1
		REGION 10 TOTAL:	**$8,915.5**

2. How much money does EPA spend annually on international travel -not just your office, but all of EPA?
   a. Please provide a brief description of the purposes of this travel, broken down by EPA office.

Response: In 2014, EPA spent roughly $1.5M in international travel. Descriptions of each is included as requested.

OFFICE	EPA Actual Cost
OA	$131,906.5
OAR	$50,021.6
OARM	$13,342.5
OCFO	$0.0
OCSPP	$240,366.8
OECA	$134,684.3
OEI	$3,970.7
OGC	$33,130.5
OIG	$0.0
OITA	$276,491.0
ORD	$412,265.5
OSWER	$37,829.3
OW	$31,333.6
R1	$5,091.1
R2	$0.0
R3	$3,832.3
R4	$5,387.7
R5	$32,903.2
R6	$3,245.9
R7	$0.0
R8	$18,479.1
R9	$23,550.4
R10	$8,915.5
TOTAL:	**$1,466,747.6**

FY 14 - Foreign Recipients and Foreign Entities List - Detail

AAShip	Awarded Amount	Award Date
Office of Air and Radation	$300,000.00	5/15/2014
Office of Air and Radation	$150,000.00	11/15/2013
Office of Air and Radation	$200,000.00	12/6/2013
Office of International and Tribal Affairs	$125,000.00	11/8/2013

Office of International and Tribal Affairs	$120,000.00	8/21/2014
Office of Reseach and Development	$495,000.00	2/25/2014
Office of Reseach and Development	$250,000.00	1/9/2014
Office of Reseach and Development	$325,000.00	9/30/2014

Office of Reseach and Development	$348,650.00	3/18/2014

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Applicant Name	Project Title
United Nations Foundation	Communication and Outreach Global Alliance from Clean Cookstoves
Pontificia Universidad Catolica de Chile	Knowledge and Information Base to support Methane Recovery and Utilization
Faculty of Technical Sciences	Pilot Methane Utilization Project
United Nations Environment Programme	Promtng Envimmntally Soung Mgmt Worldwide

United Nations University	Collaboration/Electronics & Sustainable Productn
REC for Central and Eastern Europe	CRESSIDA
World Health Organization	EPA & WHO on Health and Environment
World Health Organization	EPA & WHO on Health and Environment

Department of Fisheries and Oceans Canada

Differentiating Physical from Chemical Dispersion

Project Description

The activities in this agreement will support the United Nations Foundation work as the Secretariat for the Alliance and facilitate the integration of the EPA-lead Partnership for Clean Indoor Air and the Alliance.

The general objective of the project is the generation of a knowledge and information base which will increase the feasibility of methane recovery projects for energy generation (MRPEG) in small and medium sized landfills in the central-south zone of Chile, where 90% of the population is concentrated. This knowledge and information base would reduce barriers and transaction costs for methane recovery for energy production projects.

The aim of the research group at the Faculty of Technical Sciences is to demonstrate the technical viability of landfill gas utilization at a selected municipal landfill in Serbia, and therefore open the opportunity for more complex and efficient LFGE projects in Serbia and the region. Additionally, technical capacity building within Serbia would be accomplished through this demonstration project.

The initial phase of the project involves selection of the most suitable municipal landfill as a candidate for installation of infrared heaters. Candidate landfills will be selected according to the current general data on landfill (such as size and age), methane emissions, potential for LFG collection and utilization, etc. Information will be used from the Pre-Feasibility study prepared within the previous GMI grant: Setting up Landfill Database and Research on Possibilities for CH4 Use in Serbia, and other studies conducted at the Faculty of Technical Sciences (FTS), Department of Environmental Engineering in Novi Sad, Serbia. The team of
FTS will consult landfill owners and managers in order to determine the level of cooperation expected from them.

The objective is to provide support to UNEP in its efforts to develop and undertake scientific, technical and administrative activities needed to implement programs, partnerships and/or projects called for by the UNEP Governing Council, and to provide support for the effective functioning of multilateral environmental agreements, whose secretariats are administered by UNEP.

Recipient will advance efforts to address problems related to electronic waste that is leaving developed countries and causing negative effects on human health and the environment primarily in developing countries. Funds will be directed at tracking flows of used electronics from developed countries to developing countries and beyond, demonstrating safer management of used electronics in a West African country that could serve as a model for other countries in the region, collaborating with countries in Asia to improve information sharing that will help them better target their resources to better manage e-waste, and supporting a regional workshop for the Asia-Pacific region that will allow the recipient to bring together experts and stakeholders from the entire region to identify main areas of concern.

The overall goal of this project is to create a constantly upgrading, flexible and easily reproducible Living Laboratory to pilot sustainability tools and methods, starting on the local level in the Drini - Drina River Watershed. Each activity will be structured as a comprehensive capacity-building activity, combining both theoretical and hands-on approaches and actively engaging participants in the decision-making process. The project will foster sustainability by improving local development strategies, building watershed-management capacity, and providing decision-making tools.

The Objective of this cooperative agreement is to stimulate/support the work of WHO related to Health and the Environment, including risk assessment, which is of value to the international scientific community and nations of the world. It implements an Memorandum of Understanding between the EPA Administrator and Director General of WHO, signed first in 1992 and then in 2002 (it was extended through Fall, 2017). The activities under the MOU and this agreement contribute to the protection Human Health and the Environment by linking together existing institutions and personnel to work on shared goals including sound environmental management, improved human health risk reduction of environmental hazards, pollution prevention and sustainable economic development. This specific agreement covers the Public Health and the Environment, including the International Program on Chemical Safety (IPCS) and the Joint Meeting on Pesticide Residue (JMPR).

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This project will evaluate subsurface release of oil and chemically dispersed oil using the flow-through wave tank facility at the Bedford Institute of Oceanography, Department of Fisheries and Oceans Canada (DFO). The main objectives are to assess 1) dispersant effectiveness, 2) in-situ oil droplet size distribution, 3) the use of numerical modeling to verify the utility of subsurface dispersant application as an oil spill response option for deep water blowouts. There are a total of 48 core and 24 complimentary wave tank experiments planned taking into consideration many variables, such as natural attenuation, chemical dispersant use with varying DOR, oil type, oil temperature, oil release pressure, water temperature, and underwater current velocity. Within appropriate time limits, we will also conduct 6 static wave tank experiments involving oil addition at various time points in order to provide data generated from a series of commercial fluorometers. Results of the project will provide oil spill responders with adequate information to make decisions on the best countermeasures to implement during a subsurface oil release, and the modeling capabilities that are available to predict oil trajectory. Project deliverables will also improve the existing protocols for the use of in situ fluorometers to track the fate of dispersed oil in the marine environment.

FY 14 - Foreign Recipients and Foreign Entities List - Funds By AAShip

Sum of Awarded Amount AAShip	Total
Office of Air and Radation	$650,000.00
Office of International and Tribal Affairs	$245,000.00
Office of Reseach and Development	$1,418,650.00
Grand Total	**$2,313,650.00**